



Image shown may not reflect actual package.

## STANDBY

**1500 e kW 1875 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

### EMISSIONS STRATEGY

EPA Tier 2

### UL 2200

- UL 2200 Listed configuration available

### FULL RANGE OF ATTACHMENTS

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

### 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 Scheduled Oil Sampling program cost effectively detects internal engine component condition, even the presence of unwanted fluids and combustion by-products

### DESIGN CRITERIA

- The generator set accepts rated load in one step

### CAT 3512C DIESEL ENGINE

- Reliable, rugged, durable design
- Four-stroke-cycle diesel engine combines consistent performance and excellent fuel economy with minimum weight
- 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
- Single point access to accessory connections
- UL 1446 recognized Class H insulation

### CAT EMCP3 CONTROL PANELS

- Controls designed to meet individual customer needs:
- EMCP 3 provides the option for full-featured power metering and protective relaying
- Segregated low voltage, AC/DC accessory box provides single point access to accessory connections

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## FACTORY INSTALLED STANDARD & OPTIONAL EQUIPMENT

System	Standard	Optional
Air Inlet	<ul style="list-style-type: none"> <li>• Single element canister type air cleaner</li> <li>• Service indicator</li> </ul>	<ul style="list-style-type: none"> <li>• Dual element &amp; heavy duty air cleaners (with pre-cleaners)</li> <li>• Air inlet adapters &amp; shutoff</li> </ul>
Cooling	<ul style="list-style-type: none"> <li>• Radiator with guard (43°C)</li> <li>• Coolant drain line with valve</li> <li>• Fan and belt guards</li> <li>• Caterpillar Extended Life Coolant</li> <li>• Low coolant level &amp; high temperature alarm or shutdown</li> </ul>	<ul style="list-style-type: none"> <li>• Heat exchanger and expansion tank</li> <li>• Radiator duct flange</li> <li>• Coolant level switch gauge</li> <li>• Jacket water heater</li> </ul>
Exhaust	<ul style="list-style-type: none"> <li>• Dry exhaust manifold</li> <li>• Flanged faced outlets</li> </ul>	<ul style="list-style-type: none"> <li>• Mufflers and silencers</li> <li>• Stainless steel exhaust flex fittings</li> <li>• Elbows, flanges, expanders &amp; Y adapters</li> </ul>
Fuel	<ul style="list-style-type: none"> <li>• Primary &amp; secondary fuel filters</li> <li>• Fuel priming pump</li> <li>• Flexible fuel lines</li> <li>• Fuel cooler</li> </ul>	<ul style="list-style-type: none"> <li>• Water separator</li> <li>• Duplex fuel filter</li> </ul>
Generator SR4B	<ul style="list-style-type: none"> <li>• Permanent magnet excited</li> <li>• Class H insulation</li> <li>• Class F temperature (105°C prime/130°C standby)</li> <li>• Winding temperature detectors (select models)</li> <li>• Anti-condensation space heaters</li> </ul>	<ul style="list-style-type: none"> <li>• Oversize &amp; premium generators</li> <li>• 2/3 Pitch</li> </ul>
Power Termination	<ul style="list-style-type: none"> <li>• Bus bar (NEMA and IEC mechanical lug holes)- right side standard</li> <li>• Top and bottom cable entry</li> </ul>	<ul style="list-style-type: none"> <li>• Circuit breakers, UL listed, 3 pole shunt trip, 80% or 100% rated, choice of trip units, manual or electrically operated (low voltage only)</li> <li>• Circuit breakers, IEC compliant, 3 or 4 pole with shunt trip (low voltage only), choice of trip units, manual or electrically operated</li> <li>• Shroud cover for bottom cable entry</li> <li>• Power terminations can be located on the left and/or rear as an option. Also, multiple circuit breakers can be ordered (up to 3)</li> </ul>
Governor	<ul style="list-style-type: none"> <li>• ADEM™ III</li> </ul>	<ul style="list-style-type: none"> <li>• Load share module</li> </ul>
Control Panel	<ul style="list-style-type: none"> <li>• User interface panel (UIP) - rear mount</li> <li>• EMCP 3.1 Genset Controller</li> <li>• Speed Adjust</li> <li>• AC&amp;DC customer wiring area (right side)</li> <li>• CAT digital voltage regulator (CDVR)with DVAR/PF control, 3-phase sensing</li> <li>• Emergency Stop Pushbutton</li> </ul>	<ul style="list-style-type: none"> <li>• EMCP 3.3</li> <li>• Option for right or left mount UIP</li> <li>• Option for rear or left mount Customer wiring area</li> <li>• Local &amp; remote annunciator modules</li> <li>• Load share module</li> <li>• Discrete I/O Module</li> <li>• Generator temperature monitoring &amp; protection</li> <li>• Voltage Adjust</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> <li>• Gear type lube oil pump</li> </ul>	<ul style="list-style-type: none"> <li>• Oil level regulator</li> <li>• Deep sump oil pan</li> <li>• Electric &amp; air prelube pumps</li> <li>• Manual prelube with sump pump</li> <li>• Duplex oil filter</li> </ul>
Mounting	<ul style="list-style-type: none"> <li>• Structural steel tube</li> <li>• Anti-vibration mounts (shipped loose)</li> </ul>	<ul style="list-style-type: none"> <li>• Isolator removal</li> <li>• Spring-type zone 4</li> </ul>
Starting/Charging	<ul style="list-style-type: none"> <li>• 24 volt starting motor(s)</li> <li>• Batteries with rack and cables</li> <li>• Battery disconnect switch</li> </ul>	<ul style="list-style-type: none"> <li>• Battery chargers (10 &amp; 20 Amp)</li> <li>• 45 amp charging alternator</li> <li>• Oversize batteries</li> <li>• Ether starting aids</li> <li>• Heavy duty starting motors</li> <li>• Barring device (manual)</li> <li>• Air starting motor with control &amp; silencer</li> </ul>
Note	<p>Standard and optional equipment may vary for UL 2200 Listed Packages. UL 2200 Listed packages may have oversized generators with a different temperature rise and motor starting characteristics.</p>	

## SPECIFICATIONS

### CAT GENERATOR

SR4B Generator  
 Windings..... Random wound  
 Frame Size.....697  
 Excitation..... Permanent Magnet  
 Pitch..... 0.7333  
 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..... 003.00  
 Paralleling kit/Droop transformer..... Standard  
 Voltage Regulator 3 Phase sensing with selectable volts/Hz  
 Telephone influence factor..... Less than 50

### CAT DIESEL ENGINE

Bore..... 170.00 mm (6.69 in)  
 Stroke..... 190.00 mm (7.48 in)  
 Displacement..... 51.80 L (3161.03 in<sup>3</sup>)  
 Compression Ratio..... 14.7:1  
 Aspiration..... TA  
 Fuel System..... Electronic unit injection  
 Governor Type..... ADEM3

### CAT EMCP3 CONTROLS

- EMCP 3.1 (standard)
- EMCP 3.3 (optional)
- Integral to generator terminal box
- 24 Volt DC control
- IP 23 enclosure
- Generator instruments designed to meet UL/CSA/CE/UL508A
- Integral generator terminal box
- UL/CSA/CE
- Auto start/stop control
- Single location for customer connection
- True RMS metering, 3-phase
- Digital indications for:
  - RPM
  - Operating hours
  - Oil pressure
  - Coolant temperature
  - System DC volts
  - L-L volts, L-N volts, Phase amps, Hz
  - kW, kVA, kVAR, kWhr, %kW, PF (\*)
- Shutdowns with indicating lights for:
  - Low oil pressure
  - High coolant temperature
- Voltage Adjust (Optional on 3.1)
- Speed Adjust
- Emergency stop
- Failure to start (overcrank)
- Programmable protective relaying functions
  - Under and over voltage
  - Under and over frequency
  - Reverse power
  - Overcurrent (phase & total)
- Programmable kW level relay
- MODBUS isolated data link (RS-485 half-duplex) supports serial communication at data rate up to 115.2 kbaud

**TECHNICAL DATA**

Open Generator Set - - 1800 rpm/60 Hz/480 Volts	DM8260	
<b>Package Performance</b> Genset Power rating @ 0.8 pf Genset Power rating with fan	1875 kVA 1500 kW	
<b>Low Emissions</b> Coolant to aftercooler temp max	50 ° C	122 ° F
<b>Fuel Consumption</b> 100% load with fan 75% load with fan 50% load with fan	396.9 L/hr 310.9 L/hr 219.8 L/hr	104.8 Gal/hr 82.1 Gal/hr 58.1 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	46 ° C 0.12 kPa 2134 m <sup>3</sup> /min 156.8 L 21.4 L 178.2 L	115 ° F 0.48 in. water 75362 cfm 41.4 gal 5.7 gal 47.1 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)	129.5 m <sup>3</sup> /min 406.4 ° C 313.2 m <sup>3</sup> /min 203.2 mm 6.7 kPa	4573.3 cfm 763.5 ° F 11060.6 cfm 8.0 in 26.9 in. water
<b>Heat Rejection</b> Heat rejection to coolant (total) Heat rejection to exhaust (total) Heat rejection to aftercooler Heat rejection to atmosphere from engine Heat rejection to atmosphere from generator	616 kW 1327 kW 482 kW 124 kW 64.1 kW	35032 Btu/min 75466 Btu/min 27411 Btu/min 7052 Btu/min 3645.4 Btu/min
<b>Alternator<sup>2</sup></b> Motor starting capability @ 30% voltage dip Frame Temperature Rise	2670 skVA 697 130 ° C	266 ° F
<b>Lube System</b> Sump refill with filter	310.4 L	82.0 gal
<b>Emissions (Nominal)<sup>3</sup></b> NOx g/hp-hr CO g/hp-hr HC g/hp-hr PM g/hp-hr	4.97 g/hp-hr .45 g/hp-hr .11 g/hp-hr .03 g/hp-hr	

<sup>1</sup> Ambient capability at 300 m (984ft) above sea level. For ambient capability at other altitudes, consult your Caterpillar dealer.  
<sup>2</sup> UL 2200 Listed packages may have oversized generators with a different temperature rise and motor starting characteristics. Generator temperature rise is based on a 40 degree C ambient per NEMA MG1-32.  
<sup>3</sup> 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.

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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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Package Dimensions		
Length	5895.0 mm	232.09 in
Width	2324.5 mm	91.52 in
Height	2725.7 mm	107.31 in
Weight	14 121 kg	31,131 lb

Note: Do not use for installation design.  
See general dimension drawings for detail (Drawing #2846048).

Performance No.: DM8260

Feature Code:: 512DE6C

Source:: U.S. Sourced

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