



Image shown may not reflect actual package.

## STANDBY

**1250 kW 1562 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

### 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 (S•O•S<sup>SM</sup>) program cost effectively detects internal engine component condition, even the presence of unwanted fluids and combustion by-products

### UL 2200

- UL 2200 Listed configuration available

### SINGLE-SOURCE SUPPLIER

- Fully prototype tested with certified torsional vibration analysis available

### ENCLOSURES (optional)

- Weather protective and sound attenuated



### 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 CONTROL PANELS

- Controls designed to meet individual customer needs:
  - EMCP II+ offers full-featured power metering and protective relaying
- UL 508A Listed



### CAT 3512 TA 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
- UL 2200 Listed packages are available. Certain restrictions may apply. Consult with your Caterpillar dealer

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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</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>• Coolant level sensors</li></ul> <p>*Not included with packages without radiators</p>	<ul style="list-style-type: none"><li>• Radiator with 50°C ambient capability</li><li>• Radiator removal</li><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 (15 dba)</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>• Secondary fuel filters</li><li>• Fuel priming pump</li><li>• Flexible fuel lines</li><li>• Fuel cooler*</li></ul> <p>*Not included with packages without radiators</p>	<ul style="list-style-type: none"><li>• Water separator</li><li>• Duplex fuel filter</li></ul>
Generator	<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>• Reactive droop</li><li>• Digital Voltage Regulator, 3-phase sensing</li><li>• Bus bar connections</li><li>• Winding temperature detectors</li><li>• Anti-condensation space heaters</li></ul>	<ul style="list-style-type: none"><li>• Digital Voltage Regulator with KVAR/PF control</li><li>• Bearing temperature detectors</li><li>• Oversize, premium &amp; self-excited generators</li><li>• Cable access box</li><li>• European bus bars</li><li>• Circuit breakers, UL listed, 3 pole with shunt trip (low &amp; medium voltage only)</li><li>• Circuit breakers, IEC compliant, 3 pole with shunt trip (low &amp; medium voltage only)</li><li>• Space heater relay</li></ul>
Governing	<ul style="list-style-type: none"><li>• Woodward 2301A isochronous</li></ul>	<ul style="list-style-type: none"><li>• Load share governor</li></ul>
Control Panels	<ul style="list-style-type: none"><li>• EMCP II+ (package mounted, rear facing)</li></ul>	<ul style="list-style-type: none"><li>• Customer Communication Module</li><li>• Local alarm modules</li><li>• Remote annunciator modules</li><li>• Auto starting aid &amp; switch*</li></ul> <p>*Cannot be use with UL LIST</p>
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>• 330 mm (13 in) structural steel rails</li><li>• Spring-type, anti-vibration mounts (shipped loose)</li></ul>	<ul style="list-style-type: none"><li>• Isolator removal</li></ul>
Starting/Charging	<ul style="list-style-type: none"><li>• 24 volt starting motor(s)</li><li>• 45 amp charging alternator</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)</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>
General	<ul style="list-style-type: none"><li>• Right-hand service</li><li>• Paint - Caterpillar Yellow except rails and radiators gloss black</li><li>• SAE standard rotation</li><li>• Flywheel and flywheel housing - SAE No. 00</li></ul>	<ul style="list-style-type: none"><li>• Enclosures</li><li>• Front stub shaft</li><li>• CSA certification</li><li>• EU Certificate of Conformance</li></ul>
Note	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.	

## SPECIFICATIONS

### CAT GENERATOR

SR4B Generator

Frame.....	695
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
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

3512 TA, 4-stroke-cycle watercooled diesel

Bore - mm.....	170.00 mm (6.69 in)
Stroke - mm.....	190.00 mm (7.48 in)
Displacement - L.....	51.80 L (3160.84 cu. in)
Compression ratio.....	13.5:1
Aspiration.....	TA
Fuel system.....	Direct unit injection
Governor type.....	Woodward

### CAT CONTROL PANELS

- EMCP II+
- 24 Volt DC Control
- NEMA 12, IP44 enclosure
- Electronically dead front
- Lockable hinged door
- Generator Instruments meet ANSI C-39-1
- Generator terminal box mounted
- Single location for customer connector
- UL508A Listed
- Panel illuminating lights
- Auto start/stop control
- 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
- ekW, kVA, kVAR, kWhr, %kW, PF
- Shutdowns with indicating lights for:
  - Low oil pressure
  - High coolant temperature
- Low coolant level
- Overspeed
- 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
- 3 spare indicator LED's (programmable)
- 4 spare alarm/shutdown inputs

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## TECHNICAL DATA

Open Generator Set - - 1800 rpm/60 Hz/480 Volts	DM6686	
<b>Package Performance</b> Genset Power rating with fan Genset Power rating @ 0.8 pf	1250 ekW 1562.5 kVA	
<b>Fuel Consumption</b> 100% load with fan 75% load with fan 50% load with fan	354.0 L/hr 259.2 L/hr 184.9 L/hr	93.5 Gal/hr 68.5 Gal/hr 48.8 Gal/hr
<b>Cooling System</b> Air flow restriction (system) Engine coolant capacity Radiator coolant capacity Engine Coolant capacity with radiator/exp. tank	0.12 kPa 156.8 L 223.3 L 380.1 L	0.48 in. water 41.4 Gal 59.0 Gal 100.4 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)	106 m³/min 541.7 Deg C 305.8 m³/min 203.2 mm 6.7 kPa	3743 cfm 1007 Deg F 10799.2 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	845 kW 1432 kW 227 kW 126 kW 61.6 kW	48055 Btu/min 81438 Btu/min 12909 Btu/min 7166 Btu/min 3503.2 Btu/min
<b>Alternator</b> Motor starting capability @ 30% voltage dip Frame Temperature Rise	2274 skVA 695 125 Deg C	257 Deg F
<b>Lube System</b> Sump refill with filter	310.4 L	82.0 Gal

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

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°C ambient per NEMA MG1-32.

## **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	5140.2 mm	202.37 in
Width	2317.8 mm	91.25 in
Height	2545.1 mm	100.2 in
Weight	12 137 kg	26,757 lb

Note: Do not use for installation design.  
See general dimension drawings for detail (Drawing #2001174).

Performance No.: DM6686

Feature Code:: 512DE2H

Source:: USA Sourced

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