



Image shown may not reflect actual package.

## STANDBY

**1500 e kW 1875 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 fuel consumption

### 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

### CAT 3512B 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

### 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

- Three levels of controls to meet individual customer needs:
  - EMCP II offers digital monitoring, metering, and protection
  - EMCP II+ offers EMCP II features plus full-featured power metering and protective relaying (optional)
  - Switchgear conversions with easy interface for remote switchgear
- UL 508A Listed

# STANDBY 1500 kW 1875 kVA

50 Hz 1500 rpm 400 Volts



## 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>• 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>• Stainless steel exhaust flex and ANSI outlet flange</li> </ul>	<ul style="list-style-type: none"> <li>• Mufflers (10, 25, &amp; 35 dba)</li> <li>• Elbow kit and through-wall installation kit</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> </ul>	<ul style="list-style-type: none"> <li>• Fuel cooler</li> <li>• Water separator</li> </ul>
Generators	<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 &amp; premium generators</li> <li>• Cable access box</li> <li>• Neutral grounding connection</li> <li>• Circuit breakers, IEC compliant, 3 &amp; 4 pole with shunt trip</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™ II</li> </ul>	<ul style="list-style-type: none"> <li>• Low emissions conversion</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>• EMCP II+ with Auto-Paralleling</li> <li>• Switchgear conversion</li> <li>• Customer Communication Module</li> <li>• Local alarm &amp; 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>• Sump pump (manual)</li> <li>• Sump &amp; prelube pump (manual or electric)</li> <li>• Oil level regulator</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>	
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 (5 or 10 Amp)</li> <li>• Oversize batteries</li> <li>• Ether starting aids</li> <li>• Heavy duty starting motors</li> <li>• Barring device (manual)</li> </ul>
General		<ul style="list-style-type: none"> <li>• Crankcase explosion relief valves</li> <li>• Automatic transfer switches (ATS)</li> <li>• EU Certificate of Conformance</li> </ul>

**SPECIFICATIONS**

 **CAT GENERATOR**

SR4B Generator

Frame size.....	826
Excitation.....	Permanent Magnet
Pitch.....	0.7143
Number of poles.....	4
Number of bearings.....	002
Insulation.....	UL 1446 Recognized Class H with tropicalization and antiabrasion
IP rating.....	Drip Proof IP22
Alignment.....	Closed Coupled
Overspeed capability - % of rated.....	180
Wave form.....	003.00
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 DIESEL ENGINE**

3512B TA, 4-stroke-cycle watercooled diesel

Bore - mm.....	170.00 mm (6.69 in)
Stroke - mm.....	215.00 mm (8.46 in)
Displacement - L.....	58.56 L (3573.55 in <sup>3</sup> )
Aspiration.....	TA

 **CAT EMCP3 CONTROLS**

- EMCP 3.3 (optional)
- Single location for customer connection
- EMCP II
- NEMA 1, IP22 enclosure
- Electronically dead front
- Lockable hinged door (optional)
- Generator instruments meet ANSI C-39-1
- Terminal box mounted
- EC compliant - segregated AC/DC connections
- Panel illuminating lights
- Auto start/stop control
- Voltage adjust potentiometer
- True RMS metering, 3-phase
- Digital indications for:
  - RPM
  - Operating hours
  - Oil pressure
  - Coolant temperature
  - System DC volts
  - AC volts, phase amps, Hz
- Shutdowns with indicating lights (with optional Annunciator)
  - Low oil pressure
  - High coolant temperature
  - Overspeed
  - Emergency stop
  - Failure to start (overcrank)
- Overcurrent (phase and total)

**null**

# STANDBY 1500 ekW 1875 kVA

50 Hz 1500 rpm 400 Volts



## TECHNICAL DATA

Open Generator Set - - 1500 rpm/50 Hz/400 Volts	DM6488	
<b>Package Performance</b> Genset Power rating @ 0.8 pf Genset Power rating with fan	1875 kVA 1500 ekW	
<b>Low Fuel Consumption</b> Coolant to aftercooler temp max	30 ° C	86 ° F
<b>Fuel Consumption</b> 100% load with fan 75% load with fan 50% load with fan	384.1 L/hr 286.0 L/hr 197.5 L/hr	101.5 Gal/hr 75.6 Gal/hr 52.2 Gal/hr
<b>Cooling System</b> Air flow restriction (system) Radiator coolant capacity	0.12 kPa 313.0 L	0.48 in. water 82.7 gal
<b>Exhaust System</b> Combustion air inlet flow rate Exhaust stack gas temperature Exhaust gas flow rate Exhaust flange size (internal diameter)	125.6 m <sup>3</sup> /min 473.5 ° C 326.2 m <sup>3</sup> /min 203.2 mm	4435.5 cfm 884.3 ° F 11519.7 cfm 8.0 in
<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	526 kW 1450 kW 377 kW 119 kW 54.4 kW	29914 Btu/min 82461 Btu/min 21440 Btu/min 6768 Btu/min 3093.7 Btu/min
<b>Alternator</b> Motor starting capability @ 30% voltage dip Frame Temperature Rise	4212 skVA 826 105 ° C	221 ° F

Ambient capability at 300 m (984ft) 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.

# STANDBY 1500 kW 1875 kVA

50 Hz 1500 rpm 400 Volts



## 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 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.

# STANDBY 1500 kW 1875 kVA

50 Hz 1500 rpm 400 Volts



## DIMENSIONS

---

Package Dimensions		
Length	6032.7 mm	237.51 in
Width	2204.5 mm	86.79 in
Height	2529.0 mm	99.57 in
Weight	12 066 kg	26,601 lb

Note: Do not use for installation design.  
See general dimension drawings for detail (Drawing #2066001).

Performance No.: DM6488

Feature Code:: 512DE99

Source:: European Sourced

9 June 2005

4857959

[www.CAT-ElectricPower.com](http://www.CAT-ElectricPower.com)

© 2005 Caterpillar  
All rights reserved.

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