



## **STANDBY 350 ekW CONTINUOUS 350 ekW**

**60 Hz**

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

#### **SINGLE-SOURCE SUPPLIER**

- **Fully Prototype Tested** with certified torsional vibration analysis available

#### **WORLDWIDE PRODUCT SUPPORT**

- Worldwide parts availability through the Caterpillar dealer network
- With over 1,200 dealer outlets operating in 166 countries, you're never far from the Caterpillar part you need.
- 99.5% of parts orders filled within 48 hours. The best product support record in the industry.
- Caterpillar dealer service technicians are trained to service every aspect of your electric power generation system.
- Preventive maintenance agreements
- 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



#### **CAT® G3412 TA GAS ENGINE**

- Reliable, rugged, durable design
- Field-proven in thousands of applications worldwide
- Low pressure gas



#### **CAT SR4B GENERATOR**

- Designed to match performance and output characteristics of Caterpillar engines
- Optimum winding pitch for minimum total harmonic distortion and maximum efficiency
- Segregated AC/DC, low voltage accessory box provides single point access to accessory connections



#### **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

| System            | Standard                                                                                                                                                                                                                                       | Optional                                                                                                                                                                                                                                                  |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Air Inlet         | Single element canister type air cleaner<br>Service indicator                                                                                                                                                                                  |                                                                                                                                                                                                                                                           |
| Cooling           | Radiator with guard<br>Coolant drain lines with valves<br>Fan and belt guards<br>Caterpillar Coolant<br>Low coolant level sensors                                                                                                              | Jacket water coolant heater with shutoff valves<br>Radiator removal                                                                                                                                                                                       |
| Exhaust           | Stainless steel exhaust flex with<br>weld outlet flange                                                                                                                                                                                        | 15 dBA muffler                                                                                                                                                                                                                                            |
| Fuel              | Gas pressure regulator<br>Low pressure fuel system<br>Energize To Run (ETR) gas shutoff valve                                                                                                                                                  |                                                                                                                                                                                                                                                           |
| Generator         | Self excited<br>Class H insulation<br>Class F temperature rise<br>(105° C continuous/130° C standby)<br>VR6 Voltage Regulator, 3-phase sensing,<br>with reactive droop<br>2:1 Volts/Hz or 1:1 Volts/Hz<br>Bus bar termination<br>Extension box | Permanent magnet excited<br>Digital Voltage Regulator<br>Digital Voltage Regulator with KVAR/PF control<br>Anti-condensation space heater<br>Oversize & premium generators<br>Circuit breakers, UL, 3 pole with shunt trip<br>Multiple breaker capability |
| Governor          | 2301A speed control with EG3P actuator                                                                                                                                                                                                         | Electronic load sharing                                                                                                                                                                                                                                   |
| Ignition          | Digital ignition system                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                           |
| Control Panels    | EMCP II                                                                                                                                                                                                                                        | EMCP II+<br>Customer Communication Module<br>Local alarm & remote annunciator modules                                                                                                                                                                     |
| Lube              | Lubricating oil and filter<br>Oil drain line with valve<br>Fumes disposal                                                                                                                                                                      | Manual sump pump                                                                                                                                                                                                                                          |
| Mounting          | Wide base<br>Linear vibration isolators between base<br>and engine-generator                                                                                                                                                                   |                                                                                                                                                                                                                                                           |
| Starting/Charging | 35 amp charging alternator<br>24 volt starting motor<br>Batteries with rack and cables<br>Battery disconnect switch                                                                                                                            | Battery chargers, 5 & 10 amp<br>Oversize batteries                                                                                                                                                                                                        |
| General           |                                                                                                                                                                                                                                                | Automatic Transfer Switches (ATS)<br>Floor standing circuit breakers                                                                                                                                                                                      |



**Consult your Caterpillar dealer for available voltages.**



## TECHNICAL DATA

| Open Generator Set —<br>1800 rpm/60 Hz/480 Volts                      |          |          | Standby<br>DM5441 |        | Continuous<br>DM5442 |
|-----------------------------------------------------------------------|----------|----------|-------------------|--------|----------------------|
| <b>Package Performance</b>                                            |          |          |                   |        |                      |
| Power rating                                                          |          | ekW      | 350               |        | 350                  |
| Power rating @ 0.8 PF                                                 |          | kVA      | 438               |        | 438                  |
| Aftercooler temperature                                               | Deg C    | Deg F    | 54                | 130    | 54 130               |
| <b>Fuel Consumption</b>                                               |          |          |                   |        |                      |
| 100% load with fan                                                    | N•m³/hr  | scf/hr   | 119               | 4472   | 119 4472             |
| 75% load with fan                                                     | N•m³/hr  | scf/hr   | 95                | 3575   | 95 3575              |
| 50% load with fan                                                     | N•m³/hr  | scf/hr   | 72                | 2701   | 72 2701              |
| <b>Cooling System</b>                                                 |          |          |                   |        |                      |
| Ambient air temperature*                                              | Deg C    | Deg F    | 40                | 105    | 40 105               |
| Air flow restriction (system)                                         | kPa      | in water | 0.12              | 0.5    | 0.12 0.5             |
| Air flow (maximum @ rated speed for<br>standard radiator arrangement) | m³/min   | cfm      | 1257              | 47,480 | 1257 47,480          |
| Engine coolant capacity with radiator                                 | L        | Gal      | 106               | 28     | 106 28               |
| Jacket water outlet temperature                                       | Deg C    | Deg F    | 99                | 210    | 99 210               |
| <b>Exhaust System</b>                                                 |          |          |                   |        |                      |
| Combustion air inlet flow rate                                        | N•m³/min | scfm     | 24                | 872    | 24 872               |
| Exhaust gas stack temperature                                         | Deg C    | Deg F    | 478               | 892    | 478 892              |
| Exhaust gas flow rate                                                 | N•m³/min | cfm      | 25                | 2476   | 25 2476              |
| Exhaust flange size (internal diameter)                               | mm       | in       | 203               | 8      | 203 8                |
| Exhaust system backpressure<br>(maximum allowable)                    | kPa      | in water | 6.7               | 27     | 6.7 27               |
| <b>Heat Rejection</b>                                                 |          |          |                   |        |                      |
| Low Heat Value (LHV) fuel input                                       | kW       | Btu/min  | 1205              | 68,547 | 1205 68,547          |
| Heat rejection to jacket water<br>(includes oil cooler)               | kW       | Btu/min  | 437               | 24,869 | 437 24,869           |
| Total heat rejection to exhaust (LHV to 25° C)                        | kW       | Btu/min  | 283               | 16,067 | 283 16,067           |
| Heat rejection to exhaust (LHV to 120° C)                             | kW       | Btu/min  | 218               | 10,412 | 218 10,412           |
| Heat rejection to A/C                                                 | kW       | Btu/min  | 15                | 866    | 15 866               |
| Heat rejection to atmosphere from engine                              | kW       | Btu/min  | 48                | 2742   | 48 2742              |
| Heat rejection to atmosphere from generator                           | kW       | Btu/min  | 29                | 1660   | 29 1660              |
| <b>Generator</b>                                                      |          |          |                   |        |                      |
| Motor starting capability @ 30% voltage dip**                         | kVA      |          | 928               |        | 928                  |
| Frame                                                                 |          |          | 592               |        | 592                  |
| Temperature rise                                                      | Deg C    |          | 130               |        | 105                  |
| <b>Emissions***</b>                                                   |          |          |                   |        |                      |
| NOx                                                                   | g/bhp-hr |          | 21.3              |        | 21.3                 |
| CO                                                                    | g/bhp-hr |          | 1.5               |        | 1.5                  |
| HC (total)                                                            | g/bhp-hr |          | 1.9               |        | 1.9                  |
| HC (non-methane)                                                      | g/bhp-hr |          | 0.29              |        | 0.29                 |
| Exhaust O₂ (dry)                                                      | %        |          | 4.0               |        | 4.0                  |

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

\*\*Assumes synchronous driver

\*\*\*Emissions data measurement is consistent with those described in EPA CFR 40 PART 89 SUBPART D and ISO 8178-1 for measuring HC, CO, CO₂ and NOx. Data shown is based on steady state engine operating conditions of 77° F, 28.43 inches HG and fuel having a LHV of 920 BTU per cubic foot at 30.00 inches HG absolute and 32° F. Not to exceed emission data shown is subject to instrumentation, measurement, facility and engine fuel system adjustments.

## RATING DEFINITIONS AND CONDITIONS

**Standby** — Output available with varying load for the duration of the interruption of the normal source power.

**Continuous** — Output available without varying load for an unlimited time.

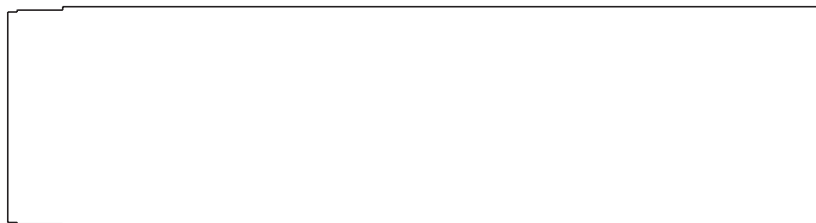
**Ratings** are based on ISO3046/1 standard reference conditions of 25° C (77° F) and 100 kPa (29.61 in Hg).

**Ratings** are based on pipeline natural gas having a LHV (low heat value) of 36.2 MJ/N•m³ (920 Btu/cu ft). Variations in altitude, temperature, and gas composition from standard conditions or the use of a three way catalyst may require a reduction in engine horsepower.

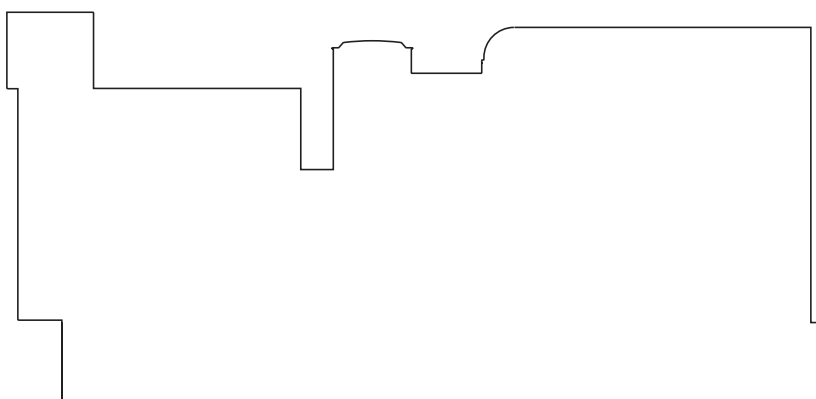
**S T A N D B Y                      3 5 0   e k W**  
**C O N T I N U O U S            3 5 0   e k W**  
**6 0   H z**



## STANDBY/CONTINUOUS POWER GENERATOR SET PACKAGE — TOP VIEW



## STANDBY/CONTINUOUS POWER GENERATOR SET PACKAGE — SIDE VIEW



| Package Dimensions |           |           |
|--------------------|-----------|-----------|
| Length             | 4543.1 mm | 178.86 in |
| Width              | 2235.8 mm | 88.02 in  |
| Height             | 2466.4 mm | 97.10 in  |
| Shipping Weight    | 6356 kg   | 14,000 lb |

Note: Do not use for installation design.  
See general dimension drawings  
for detail (Drawing #207-4502).

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

TMI Reference No.: DM5441, DM5442

U.S. sourced

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The International System of Units (SI) is used in this publication.