

**EMERGENCY GENERATOR VENDOR DATA**



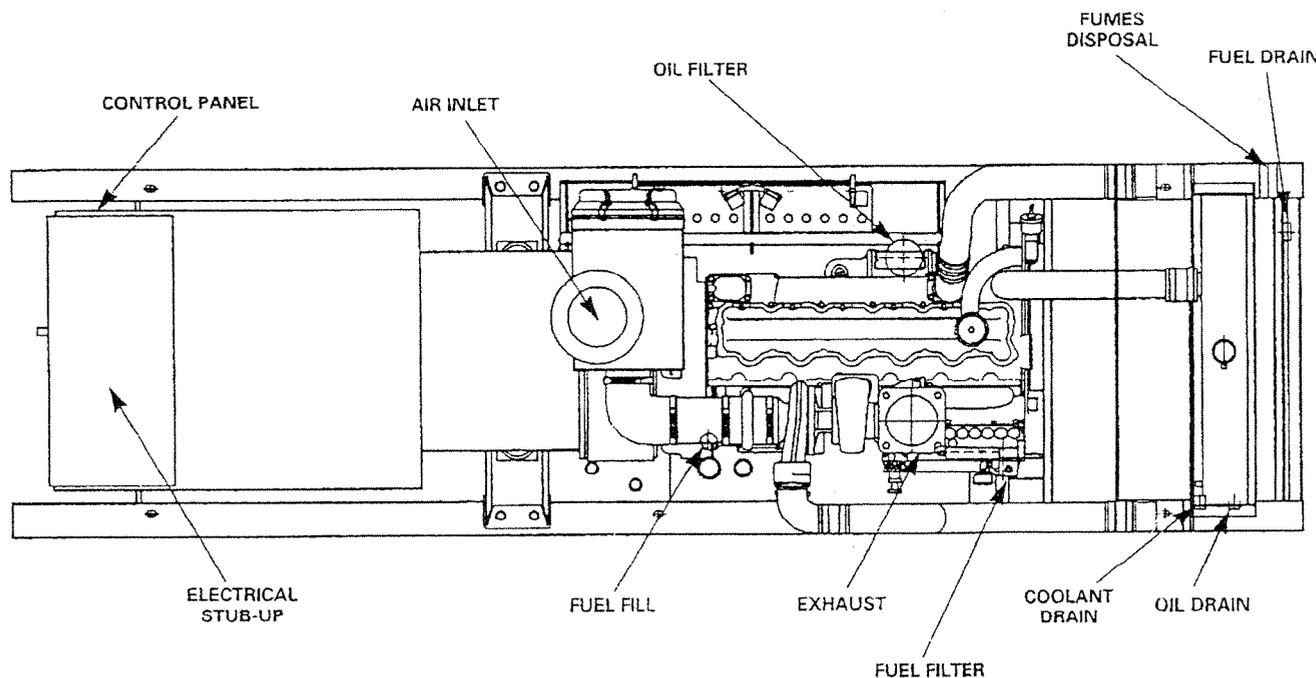


# 250 kW GENERATOR SET

## FACTORY INSTALLED STANDARD & OPTIONAL EQUIPMENT

SYSTEM	STANDARD	OPTIONAL
<b>Air inlet</b>	modular air cleaner, single element with dust evacuator service indicator	dual element air cleaner heavy-duty air cleaner air inlet shutoff
<b>Cooling</b>	radiator with guard coolant drain line with valve fan and belt guards Caterpillar Extended Life Coolant	radiator duct flange jacket water heater with isolation valves low coolant level alarm and shutdown heat exchanger and expansion tank
<b>Exhaust</b>	stainless steel exhaust flex with mating weld flange industrial grade muffler	residential muffler critical muffler muffler mounting kit, through-wall installation kit engine exhaust guarding
<b>Fuel</b>	primary fuel filter secondary fuel filter fuel priming pump fuel pressure gauge flexible fuel lines	water separator manual transfer pump automatic transfer systems, 3 configurations low fuel level alarm and shutdown
<b>Generator</b>	self excited class F temperature rise 266° F (130° C) standby circuit breaker, IEC compliant 3-pole with shunt trip	permanent magnet excitation 2:1 Volts/Hz AVR Digital Voltage Regulator (D.V.R.) D.V.R. with KVAR/PF control space heater reactive droop kit oversize and premium generators circuit breaker, IEC compliant, 4-pole with shunt trip
<b>Governor</b>	hydra-mechanical	electronic isochronous and load sharing
<b>Control panels</b>	EMCP II	electromechanical auto start/stop panel switchgear conversion EMCP II+ system expansion modules
<b>Lube</b>	lubricating oil oil drain line with valves fumes disposal	manual sump pump
<b>Mounting</b>	formed steel base with integral fuel tank, 8 hour capacity – minimum linear vibration isolators between base and engine-generator	wide base with integral fuel tank extended capacity fuel tank base skid base
<b>Starting/charging</b>	45 amp charging alternator Energize To Run (ETR) fuel shutoff solenoid 24 volt starting motor batteries with rack and cables	integral 5 amp battery charger oversize batteries ether starting aid battery disconnect
<b>Other</b>		enclosures – sound attenuated, weather protective automatic transfer switch CE certification

**STANDBY POWER GENERATOR SET PACKAGE — TOP VIEW**



PACKAGE DIMENSIONS		
Length	in	150
Width	in	43
Height	in	76
Shipping Weight	lb	6977

Note: General configuration not to be used for installation. See general dimension drawings for detail.

**RATING DEFINITIONS AND CONDITIONS**

**Standby** — Output available with varying load for the duration of the interruption of the normal source power. Fuel stop power in accordance with ISO3046/1, AS2789, DIN6271, and BS5514.

**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 (60° F or 16° C) gravity having an LHV of 13 390 Btu/lb (42 780 kJ/kg) when used at 85° F (29° C) and weighing 7.001 lbs/U.S. gal. (838.9 g/liter).

Additional ratings may be available for specific customer requirements. Consult your Caterpillar representative for details.

### Emissions Data for CAT 3306 - 250 kW Genset

DM3400-00 PGS STANDBY 60 HERTZ  
GEN 250.0 W/F EKW 263.0 W/O F EKW W/F BHP 382 W/O F BHP 1800 @ RPM

EXH STK DIA 5.0 IN

INFO CODE 05 - EMISSIONS DATA \* \* REFERENCE NOTES \* \* \* \* \*

EMISSIONS DATA MEASUREMENT IS CONSISTENT WITH THOSE DESCRIBED IN EPA CFR 40 PART 86 SUBPART D AND ISO 8178-1 FOR MEASURING HC, CO, CO2 AND NOX. THESE PROCEDURES ARE VERY SIMILAR TO THE METHODS DESCRIBED IN EPA CFR 40 PART 60 APPENDIX A METHOD 25A FOR HYDROCARBONS, METHOD 10 FOR CO, METHOD 7E FOR NOX.

DATA SHOWN IS BASED ON STEADY STATE ENGINE OPERATING CONDITIONS OF 77 DEG F, 28.42 IN HG AND NUMBER 2 DIESEL FUEL WITH 35 DEG API AND LHV OF 18,390 BTU/LB.

TO PROPERLY APPLY THIS DATA YOU MUST REFER TO PERFORMANCE PARAMETER DM1176 FOR ADDITIONAL INFORMATION, (APPLICATION GKN402, PROGRAM 03).

-GKGPE1 TMI - ENGINE AND COMP PERF DATE: 03/31/2000  
20 - PACKAGE SET PERFORMANCE TIME: 12:11:13

3306B DI TA AA DRY MANF TURBO QTY 1 CAT 3 GOV  
DM3400-00 PGS STANDBY 60 HERTZ EXH STK DIA 5.0 IN  
GEN 250.0 W/F EKW 263.0 W/O F EKW W/F BHP 382 W/O F BHP 1800 @ RPM  
CERTIFICATION YEAR CERT AGENCY

INFO CODE 05 - EMISSIONS DATA \* \* \* \* \* RATED SPEED \* \* \* \* \* STANDARD TIMING  
"NOT TO EXCEED DATA" O2 (DRY)

GEN	ENG	NOX	TOTAL	PART	IN EXH	SMOKE	BOSCH
PWR	%	PWR (AS NO2)	CO	HC	MATTER (VOL)	OPAC	SMOKE
EKW	LOAD	BHP	* * * * *	LB/HR	* * * * *	%	% NO.

250.0	100	382.2	3.1	4.29	.95	.12	.110	10.10	1.7	1.29
187.5	75	289.0	3.7	3.64	.41	.15	.060	10.90	1.1	1.27
125.0	50	198.3	6.5	2.83	.46	.17	.060	12.20	1.4	1.30
62.5	25	110.1	6.4	1.56	.49	.11	.060	14.10	1.9	1.35
25.0	10	55.1	6.4	.78	.74	.17	.060	15.80	2.1	1.35

-GKGPE2 TMI - ENGINE AND COMP PERF DATE: 03/31/2000  
20 - PACKAGE SET PERFORMANCE TIME: 12:14:13

3306B DI TA AA DRY MANF TURBO QTY 1 CAT 3 GOV  
DM3400-00 PGS STANDBY 60 HERTZ EXH STK DIA 5.0 IN  
GEN 250.0 W/F EKW 263.0 W/O F EKW W/F BHP 382 W/O F BHP 1800 @ RPM  
CERTIFICATION YEAR CERT AGENCY

INFO CODE 05 - EMISSIONS DATA \* \* \* \* \* RATED CONDITIONS \* \* STANDARD TIMING  
"NOMINAL DATA"

AT RATED:

WET EXHAUST MASS	3497 LB/HR
WET EXHAUST FLOW ( 994 DEG F STACK TEMP )	2175 CFM
WET EXHAUST FLOW RATE ( 32 DEG F AND 29.98 IN HG )	735 STD CFM
DRY EXHAUST FLOW RATE ( 32 DEG F AND 29.98 IN HG )	655 STD CFM
FUEL FLOW RATE	19.0 GAL/HR

$$\frac{4.29 \text{ lb}}{382.2 \text{ bhp}} = \frac{4.29 \text{ lb}}{16} = 5 \frac{\text{lb}}{\text{bhp-hr}}$$
  

$$2175 \frac{\text{ft}^3}{\text{min}} \times \frac{1 \text{ min}}{60 \text{ s}} \times \frac{4}{\pi (\frac{5}{12})^2}$$