MILWAUKEE TELEVISION, LLC 4041 N. 35TH Street Milwaukee, WI 53216

File Number 111482

Zoning Amendment to Stage 14 at Park Place 11520 W. Calumet Road

Equipment Illustrations

Sheet 1
Satellite Dish Company Will Purchase

Sheet 2
Typical Generator Illustration
Specific Make/Model To Be Determined





FEATURES

UL 2200

UL 2200 Listed configuration available

FULL RANGE OF ATTACHMENTS

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

ENCLOSURES (Optional)

Weather protective and sound attenuated

SINGLE-SOURCE SUPPLIER

- Complete systems designed and built at Caterpillar ISO 9001 certified facilities
- Certified Prototype Tested with torsional analysis

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™) program cost effectively detects internal engine component condition, even the presence of unwanted fluids and combustion by-products

STANDBY 230 ekW 210 ekW PRIME

60 Hz

Caterpillar is leading the power generation marketplace with Power Solutions engineered to deliver unmatched flexibility, expandability, reliability, and cost-effectiveness.



CAT® 3306B 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



CAT SR4B GENERATOR

- · Designed to match performance and output characteristics of Caterpillar diesel engines
- Optimum winding pitch for minimum total harmonic distortion and maximum efficiency
- UL 1446 Recognized Class F available for UL 2200 packaged generator set

CAT CONTROL PANELS

- Four levels of controls, designed to meet individual customer needs:
 - Electromechanical panel provides analog monitoring and metering with basic protection
 - EMCP II provides digital monitoring, metering, and protection (UL 508A Listed)
 - EMCP II+ provides EMCP II features along with full-featured power metering and protective relaying (UL 508A Listed)
 - Switchgear conversion provides easy interface for remote switchgear





FACTORY INSTALLED STANDARD & OPTIONAL EQUIPMENT

System	Standard	Optional Dual element air cleaner Heavy-duty air cleaner with muffler			
Air Inlet	Air cleaner Service indicator				
Cooling	Radiator with guard Coolant drain line with valve Fan and belt guards	Extended life coolant Jacket water heater with shutoff valves Low coolant level alarm and shutdown Heat exchanger and expansion tank Optional radiators			
Exhaust	Exhaust manifold	Industrial, residential and critical mufflers ANSI flange Outlet flange and pipe			
Fuel	Fuel filter Fuel priming pump Fuel transfer pump	Water separator Day tank Flexible fuel lines Fuel pressure gauge Primary fuel filter			
Generator	Self excited class H insulation class F temperature rise [130° C standby/105° C prime] 3-phase sensing VR3 voltage regulator	Permanent magnet excitation 2:1 Volts/Hz AVR Digital Voltage Regulator Digital Voltage Regulator with KVAR/PF control Space heater Reactive droop kit Oversize generators Up to 2 circuit breakers, 3-pole (UL) and 4-pole with shunt trip			
Governor	Hydra-mechanical Woodward 524 (EPA only)	Isochronous (electronic) Electronic load sharing Governor control motor PSG governor			
Control Panels	EMCP II	Electromechanical auto start/stop panel EMCP II+ Switchgear conversion Local alarm and remote annunciator modules			
Lube	Lubricating oil and filter Oil drain line with valves Fumes disposal	Manual sump pump			
Mounting	Formed steel base Linear vibration isolators between base and engine-generator	Narrow base Fuel tank sub-base Skid base			
Starting/ Charging	24 Volt starting motor	5 amp and 10 amp battery charger Batteries, rack, and cables Ether starting aid 35 and 45 amp charging alternators			
Other		Enclosures — sound attenuated, weather protective Automatic transfer switches Special testing Customer communication module and interface module Alarm module			

SPECIFICATIONS



CAT SR4B GENERATOR

Type
Insulation standard packageClass H with tropicalization and antiabrasion
Insulation, UL 2200
AlignmentPilot shaft
Overspeed capability Prototype tested
Wave form Less than 5% deviation
Paralleling capability With optional droop transformer
Voltage regulator 3-phase sensing with Volts-per-Hertz
Voltage regulation Less than \pm 1/2% (steady state) Less than \pm 1% (no load to full load)
Voltage gain Adjustable to compensate for engine speed droop and line loss
TIF Less than 50 THD Less than 5%
TILD Loop than 070



CAT ENGINE

3306B, I-6, 4-stroke-cycle watercoole	d diesel
Bore — mm (in)	121 (4.75)
Stroke — mm (in)	152 (6.0)
Displacement — L (cu in)	10.4 (638)
Compression ratio	
Aspiration	
Fuel system	Mechanical pump
Governor type	Hydra-mechanical



CAT CONTROL PANEL

24 Volt DC Control

NEMA 1, IP22 enclosure Electrically dead front Lockable hinged door

Generator instruments meet ANSI C-39-1

Terminal box mounted

Single location customer connector point UL 508A Listed

Consult your Caterpillar dealer for available voltages.

TECHNICAL DATA

Generator Set — 1800 rpm/60 Hz/480 Volt			Sta	ndby	Pr	ime
Package Performance Power rating Power rating @ 0.8 PF	ekW		230		210	
	kVA		288		263	
Fuel Consumption 100% load with fan 75% load with fan 50% load with fan	L/hr	Gal/hr	67.8	17.9	61.3	16.2
	L/hr	Gal/hr	50.7	13.4	45.8	12.1
	L/hr	Gal/hr	35.2	9.3	32.6	8.6
Cooling System Ambient air temperature Air flow restriction (system) Air flow (maximum @ rated speed for standard radiator arrangement) Engine coolant capacity with radiator Engine coolant capacity without radiator	Deg C	Deg F	52	125	49	121
	kPa	in water	62	0.25	62	0.25
	m³/min	cfm	278	9840	278	9840
	L	Gal	39.7	10.5	39.7	10.5
	L	Gal	15.9	4.2	15.9	4.2
Exhaust System Combustion air inlet flow rate Exhaust stack gas temperature Exhaust gas flow rate Exhaust flange size (internal diameter) Exhaust system backpressure (maximum allowable)	m³/min	cfm	19.7	696	18.3	646
	Deg C	Deg F	556	1032	537	998
	m³/min	cfm	58.2	2055	52.6	1858
	mm	in	152	6.0	152	6.0
	kPa	in water	6723	27	6723	27
Heat Rejection Heat rejection to coolant (total) Heat rejection to exhaust (total) Heat rejection to atmosphere from engine Heat rejection to atmosphere from generator	kW kW kW	Btu/min Btu/min Btu/min Btu/min	153 263 49 19	8701 14,957 2787 1102	139 235 43 17	7905 13,364 2445 972
Alternator Motor starting capability @ 30% voltage dip Frame Temperature rise	kVA Deg C		571 4455 98		571 4455 80	
Lube System Lube oil refill volume with filter change for standard sump	L	Qts	29	31	29	31

^{*}UL 2200 Listed packages may have oversized generators with a different temperature rise and motor starting characteristics.

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 MG1-22, 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.

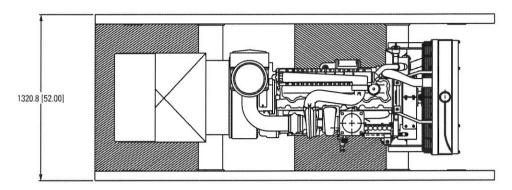
Prime — Output available with varying load for an unlimited time. Prime power in accordance with ISO8528. 10% overload power in accordance with ISO3046/1, AS2789, DIN6271, and BS5514 available on request.

Ratings are based on SAE J1349 standard conditions. These ratings also apply at ISO3046/1, DIN6271, and BS5514 standard conditions.

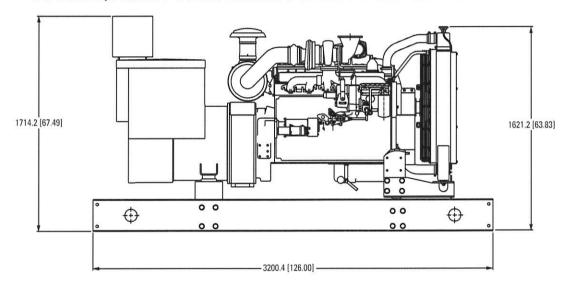
Fuel rates are based on fuel oil of 35° API [@ 16° C (60° F)] gravity having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 29° C (85° F) and weighing 838.9 g/liter (7.001 lbs/U.S. gal.).

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

STANDBY/PRIME POWER GENERATOR SET PACKAGE — TOP VIEW



STANDBY/PRIME POWER GENERATOR SET PACKAGE — SIDE VIEW



Package Dimensions					
Length	3200.4 mm	126.00 in			
Width	1320.8 mm	52.00 in			
Radiator Height	1621.2 mm	63.83 in			
Control Panel Height	1714.2 mm	67.49 in			
Shipping Weight	2277 kg	5,020 lb			

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

