

CATERPILLAR

**PRELIMINARY
NOT FOR CONSTRUCTION**

Shown with
Optional
Equipment

FEATURES

- **FULL RANGE OF ATTACHMENTS**
 - Wide range of bolt-on system expansion attachments, factory designed and tested
- **SINGLE-SOURCE SUPPLIER**
 - Complete systems designed and built at Caterpillar ISO 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 186 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
- **MEETS OR EXCEEDS INTERNATIONAL SPECIFICATIONS: ABGSM TMS, AS 1359, AS2789, BS4999, BS5000, BS5514, DIN6271, DIN6280, EGSA101B, IEC 34/1, ISO3046/1, ISO8628, JEM1359, NEMA MG1, VED0530, 89/392/EEC, 89/336/EEC**
- **CAT® 3512B 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

Generator Set 1500 kW

1800 rpm
60 Hz

Standby Power

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

■ 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
- Segregated AC/DC, low voltage accessory box provides single point access to accessory connections

■ CAT® CONTROL PANELS

- Four levels of controls, designed to meet individual customer needs.
- Switchgear conversion using Caterpillar electronic monitoring system provides state-of-the-art engine monitoring and protection while providing a simple interface to separate floorstanding switchgear.
- Microprocessor based Electronic Modular Control Panel (EMCP II and EMCP II+) use digital metering and true RMS monitoring to provide advanced monitoring, metering, control, and protective relaying capabilities. Fully compatible with Caterpillar annunciators, and remote communication and expansion modules.
- EMCP II+ paralleling panel provides fully automatic and manual permissive paralleling capability. Synchronizing and load sharing are added to EMCP II+ power metering and protective relaying to provide a state-of-the-art paralleling system which is self contained within the generator set.



CATERPILLAR

1500 kW GENERATOR SET

FACTORY INSTALLED STANDARD & OPTIONAL EQUIPMENT

SYSTEM	STANDARD	OPTIONAL
Air Inlet	modular air cleaner, single element service indicator	dual element air cleaner heavy-duty air cleaner air inlet shutoff
Cooling	radiator with guard coolant drain line with valve fan and belt guards Caterpillar Extended Life Coolant low coolant level shutdown	radiator duct flange jacket water heater with isolation valves
Exhaust	stainless steel exhaust flex and ANSI weld flange engine exhaust guarding	industrial grade muffler and ANSI weld flanges residential muffler and ANSI weld flanges critical muffler and ANSI weld flanges muffler mounting kit, through-wall installation kit
Fuel	primary fuel filter secondary fuel filter fuel priming pump flexible fuel lines	fuel cooler water separator low fuel level alarm and shutdown
Generator	permanent magnet excitation Digital Voltage Regulator (D.V.R.) class F temperature rise 266° F (130° C) standby anti-condensation space heater stator temperature detectors (type-J thermocouples)	D.V.R. with KVAR/PF control bearing temperature detectors oversize and premium generators circuit breaker, IEC compliant 3-pole with shunt trip circuit breaker, IEC compliant, 4-pole with shunt trip
Governor	Caterpillar® ADEM control system	load sharing
Control panels	EMCP II	switchgear conversion EMCP II+ system expansion modules
Lube	lubricating oil oil drain line with valves fumes disposal	sump pump — manual sump pump and prelube — manual sump pump and prelube — 24VDC lube oil level regulation system lube oil high temperature shutdown
Mounting	13-in. structural steel rails spring-type anti-abrasion isolators	
Starting/ charging	45 amp charging alternator fuel shutoff solenoid 24 volt starting motor batteries with rack and cables battery disconnect	integral 5 amp battery charger oversize batteries ether starting aid heavy-duty starting system
Other		CE certification crankcase explosion relief valves

1500 kW GENERATOR SET



TECHNICAL DATA

1500 kW/1875 kV-A Standby Power Generator Set - 1800 rpm/60 Hz

Package Performance		
Power rating @ 0.8 PF with fan	kW kV-A	1500 1875
Fuel Consumption		
100% Load with Fan	gph	110.3
75% Load with Fan	gph	81.9
Cooling System		
Ambient Air Temperature (Consult T.M.I.) Designed for operation up to	Deg F	109.4
Air Flow Restriction (After Radiator) Standard Radiator Arrangement Data	in water	.76
Air Flow (Max @ Rated Speed)	cfm	55 720
Engine Coolant Capacity with Radiator	gal	124.2
Engine Coolant Capacity without Radiator	gal	42
Exhaust System		
Combustion Air Inlet Flow Rate	cfm	4470
Exhaust Gas Stack Temperature	Deg F	947
Exhaust Gas Flow Rate	cfm	12 337
Exhaust Flange Size — (Internal Diameter)	in	8
System Backpressure (Max. Allowable)	in water	27
Heat Rejection		
Heat Rejection to Coolant (Total)	BTU/min	38 387
Heat Rejection to Exhaust (Total)	BTU/min	92 357
Heat Rejection to Atmosphere from Engine	BTU/min	9042
Heat Rejection to Atmosphere from Generator	BTU/min	3830

Deration: Generator set is designed to operate in ambient temperatures up to 109° F (43° C) and at higher altitudes. Please consult factory for available outputs.

CAT® 607 FRAME GENERATOR SPECIFICATIONS

Type	Permanent magnet excited, static regulated, brushless
Construction	Single bearing, close coupled
Three phase	8 lead
Insulation	Class H with tropicalization and antiabrasion
Enclosure	Drip proof IP22
Alignment	Pilot shaft
Overspeed capability	150%
Wave form	Less than 5% deviation
Paralleling capability	Standard
Voltage regulator	3-phase sensing with D.V.R.
Voltage regulation	Less than ±1/2% (steady state) Less than ± 1% (no load to full load)
Voltage gain	Adjustable to compensate for line loss
TIF	Less than 50
THD	Less than 5%

CAT® 3512B ENGINE SPECIFICATIONS

V-12, 4-Stroke-Cycle Watercooled Diesel	
Bore — in (mm)	6.7 (170)
Stroke — in (mm)	7.5 (190)
Displacement — cu in (L)	3158 (51.8)
Compression ratio	14:1
Aspiration	Turbocharged, Separate Circuit Aftercooled
Fuel System	Direct Unit Injection

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
EC compliant — segregated AC/DC connection

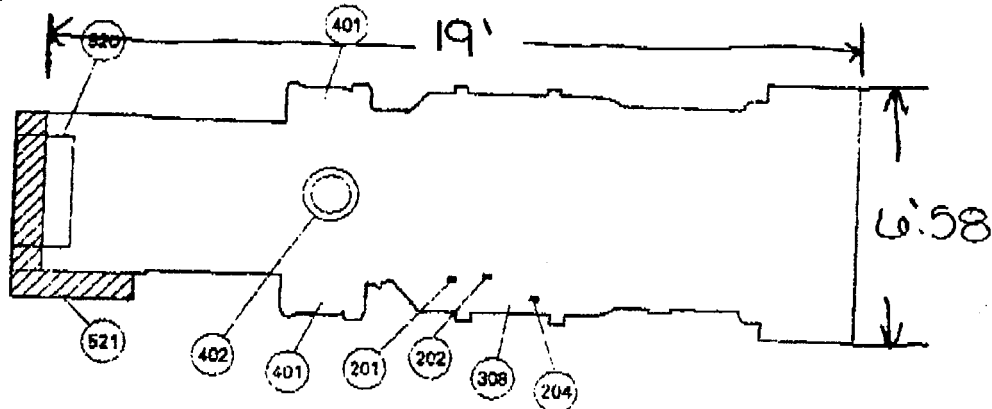
Consult your Caterpillar dealer for available voltages.

5 x 15 DAD **CATERPILLAR**

1500 kW GENERATOR SET

**PRELIMINARY
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POWER GENERATOR SET PACKAGE — TOP VIEW



- (201) Fuel Inlet
- (202) Excess Fuel Return
- (204) Fuel Filter
- (308) Oil Filter
- (401) Air Cleaner
- (402) Exhaust
- (520) Control and Power Panel
- (521) Conduit Entrance

PACKAGE DIMENSIONS		
Length	in. (mm)	228 (5788)
Width	in. (mm)	79 (2000)
Height	in. (mm)	88 (2230)
Shipping Weight	lb (kg)	26 350 (11 980)

Enclosure listed Separately

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

APPROX 36,000 LBS

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 18 390 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.