

BUILT FOR IT.

CAT[®] G3500

Series Gas Generator Sets



CAT[®]G3500 SERIES NFKGY SOLUTIONS

COMMERCIAL AND INDUSTRIAL FACILITIES

Facilities such as manufacturing plants, resorts, shopping centers, office or residential buildings, universities, data centers and hospitals reduce operating costs and carbon footprint simultaneously.

ELECTRIC UTILITIES

Caterpillar has led innovation to deliver stationary and containerized gas power plants to electric utilities and district energy facilities around the world for both continuous grid support and peak electricity demand.

MINES

Mining operators increase mine safety and reduce carbon emissions with coal gas, while many other mining operations are realizing the benefits of onsite gas power generation to support greenfield site development.

AGRICULTURE AND FOOD / BEVERAGE PROCESSING

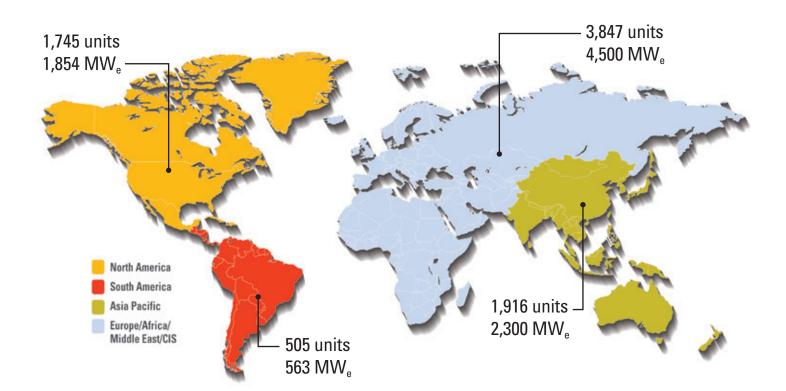
Biogas, a useful byproduct of the anaerobic digestion of organic waste, is created by food processors, ethanol and biodiesel manufacturers, and farms around the world as a renewable fuel resource for Cat powered electricity generation.

LANDFILLS AND WASTEWATER TREATMENT PLANTS

Landfill and sewage gases are generated by communities around the world as part of sanitary process infrastructure. Instead of destroying or flaring the methane gas produced, communities make beneficial use of this fuel as part of a sustainable energy program.

GREENHOUSES

In greenhouses, Cat gas generator sets simultaneously deliver electricity for lighting or sale to the local grid, hot water for facility heating and carbon dioxide as an organic fertilizer for increased crop production.



MEETING YOUR NEEDS HAS SHAPED OUR HISTORY

At Caterpillar, we understand what it takes to deliver a successful gas power generation system, and it starts with a core machine that is designed for efficiency and reliability. Since the 1920s, Caterpillar has been designing and building engines for power production. Although the technology has changed over the years, the philosophy hasn't: to deliver the most reliable power generation at the lowest possible cost of ownership and operation. Today, Caterpillar not only manufactures power generation equipment, but we also provide customized project financing via Cat Financial

THE COMPLETE SOLUTION

Caterpillar is your complete gas solutions partner. From mechanical systems such as gas fuel train and heat recovery systems, to exhaust aftertreatment that complies with the world's most stringent emission requirements, Caterpillar Gas Solutions engineering works with your local Cat dealer to deliver a complete scope of supply. Caterpillar also provides electrical systems such as master controls and paralleling switchgear, electrical distribution switchgear and uninterruptible power supply (UPS) that can meet either UL or IEC requirements.

PRODUCT SUPPORT WORLDWIDE

Your gas power system is supported by our factory trained global network of Cat dealers. Therefore, you can rest assured that your equipment will be ordered, delivered, installed and commissioned in consultation with a local expert. You'll also have the confidence that Caterpillar will be there to keep you up and running. Cat dealers have over 1,600 dealer branch stores operating in 200 countries to provide the most extensive post-sales support including oil and fuel monitoring services, preventive maintenance and comprehensive Customer Support Agreements.

LOWER LIFE CYCLE COST

With longer maintenance intervals, higher fuel efficiency and competitive repair options, Caterpillar delivers the lowest total owning and operating costs. When you design your facility within Caterpillar's Application and Installation Guidelines, you can expect generator set availability up to 99 percent of planned operating hours annually. It all adds up to a strong return on your investment, year after year.

Installed capacity of 9,217 MW_e with 8,013 generator sets worldwide

HIGHLY EFFICIENT PERFORMANCE

PRINCETON UNIVERSITY



PRINCETON, NEW JERSEY, USA

In 2011, Caterpillar delivered a G3520E 60 Hz gas generator set rated for 2,000 $kW_{\mbox{\tiny e}}$ designed for waste heat recovery for the University's new High-Performance Computing Resource Center. The project helps support campus-wide energy efficiency goals.

BINATOM ELECTRIC PRODUCTION



KUTHAYA REGION, TURKEY

the plug-and-play design of Caterpillar's latest G3516H gas generator set. With the local Cat dealer also supplying the CHP system and fuel train,



HIGHLY EFFICIENT The E & H Series takes electrical efficiency to the next level, up to 44.7 percent (1.0PF, ISO). Improved performance is delivered via a combination of new piston ring liner packs, optimized turbochargers, updated controls, crankcase recirculation system and low-loss steel generator construction.



CUSTOM ENGINEERED TO CUSTOMER SPECS

Whether your goals are achieving the lowest fuel consumption, lowest emissions, high load response, or just surviving challenging high ambient conditions, the E & H Series offers tailored turbochargers, air systems and controls that are matched to your performance requirements.

HBG-**HEIZWERKBETRIEBSGESELLSCHAFT**



REUTLINGEN, GERMANY

This district power and heating plant had been operating Cat G3520C generator sets at total system efficiency near 100 percent based on condensing heat exchangers and industrial heat pumps. When a new plant was commissioned in 2012 with a next generation G3516H, the plant manager declared it "the easiest genset startup we've seen."







LOWEST MAINTENANCE COSTS

The E & H Series consumes U.S. \$14,000 less oil per year than competitive engines, achieving a mid-life oil consumption below 182 mg/kW_m-h (0.0003 lb/bhp-h). Major planned overhauls up to 80,000 hours ensure the lowest possible long-term owning and operating costs.

RESPONSIVE AND DURABLE



CAT

JINCHENG COAL MINING GROUP LTD. JINCHENG, SHANXI, CHINA

The largest coal-mine-methane fueled power plant in the world employs 60 Cat G3520C generator sets to divert harmful coal gas from entering the atmosphere while generating cost-effective electricity for over a half million Chinese homes.



BIFFA POPLARS LANDFILL CANNOCK, UNITED KINGDOM

A power expansion of 4 MW was made possible with two landfill powered G3520C generators sets in custom outdoor enclosures. Engine heat is recovered for leachate treatment and the entire system can be operated remotely.





WENTWORTH RESOURCES MNAZI BAY & MTWARA, TANZANIA

Local natural gas resources fuel nine G3520C generator sets to provide the area's first reliable utility power source, resulting in economic prosperity never before experienced by the local community.



HARDENED AGAINST CONTAMINANTS

Since 2005, the C Series has become the industry leader for operation on landfill gas, agricultural biogas and sewage gas fuels. Specially treated aftercooler cores, cylinder heads and rear gear train bearings are hardened against corrosive biogas elements. Elevated jacket water temperatures and crankcase ventilation discourage harmful acidic condensation.



BEST-IN-CLASS LOAD RESPONSE

The island mode version of the C Series generator sets provides the best option in the industry for efficient operation disconnected from the utility grid thanks to a specialized controls architecture. When block loads are applied up to 25 percent of nameplate rating, the generator set recovers to nominal frequency and voltage within 10 seconds (IS08528-5 Class G1).



SPECIAL PROJECT CAPABILITY

Caterpillar is investing in research and development programs on the C Series platform that allow for operation on specialty fuels such as syngas, blast furnace gas, coke oven gas and ultra-low methane coal gas.



BALANCED AND ADAPTABLE



BOGORODSKOE INDUSTRIES LLC BOGORODSKOE, RUSSIA

With only four months to transport and construct a complete heat and power facility to support the city of Bogorodskoe, Caterpillar and local dealer Amur Machinery commissioned three G3516B generator sets in arctic grade enclosures with a heat recovery system that delivers 90 percent system efficiency.



MONROE COUNTY COMMUNITY COLLEGE MILFORD, MASSACHUSETTS, USA

Monroe County saves \$1 million per year in energy costs by implementing four Cat G3516B in a trigeneration scheme that produces 5.4 MW of electricity along with hot water and summer cooling for the Monroe County Community College.



FINNING RENTAL POWER EDMONTON, ALBERTA, CANADA

Finning Rental Power is the largest provider of Cat gas rental power services in North America. Their fleet includes over 20 Cat XQ1250G power modules using G3516B generator sets that deliver temporary power to industrial, commercial and petroleum projects across Western Canada.



A TECHNOLOGY FIRST

The G3500B Series was the first Cat gas generator set to introduce several technologies: fully electronic control, automated air fuel ratio adjustment, pre-chamber spark plugs, transient richening with turbo bypass and individual cylinder detonation control.



ADAPTABLE

With standard natural gas configurations designed to handle Cat methane numbers down to 60 MN, the B Series is particularly adept at handling pipeline fuels that experience seasonal variability. Recent updates allow for high efficiency operation on lower MN fuels such as propane.



A FIRST IN MOBILITY

The G3516B generator set was the first lean burn gas generator set in the world to be offered as a fully mobile, containerized power plant. The X01250G rental module was introduced in 2004, and updated in 2010 to include updated generator set and utility paralleling controls, improved fuel train and lower exhaust emissions.





HANGZHOU MUNICIPAL SOLID WASTE TREATMENT COMPANY LTD. HANGZHOU, ZHEJIANG, CHINA

To power the first major landfill-gas-to-energy project in China, the local authorities selected two G3516A landfill gas generator sets. After 10 years and 80,000 hours of successful operation without a major overhaul, in 2011 Caterpillar was again selected to provide two more G3516A generator sets for an expansion site.



ENERDYNE POWER SYSTEMS ALCOA, TENNESSEE, USA

To maximize the 1 MW of renewable energy allowed for export to the local grid, in 2011 Caterpillar delivered a unique G3516A gas generator set in a custom outdoor enclosure, with a custom gear train, and low NO_x setting that allowed the customer to operate at maximum power for maximum profit.



ENGINE DEVELOPMENTS LTD., APPIN COAL MINE NEW SOUTH WALES, AUSTRALIA

In 1995, 94 G3516A coal gas generator sets were commissioned to provide a first-of-a-kind in sustainable energy: electricity from underground coal gas. In 2012, after many engines reached 100,000 operating hours without a major overhaul, power plant owner-operator EDL extended their power contract for four more years.

AN INDUSTRY WORKHORSE FOR OVER 25 YEARS

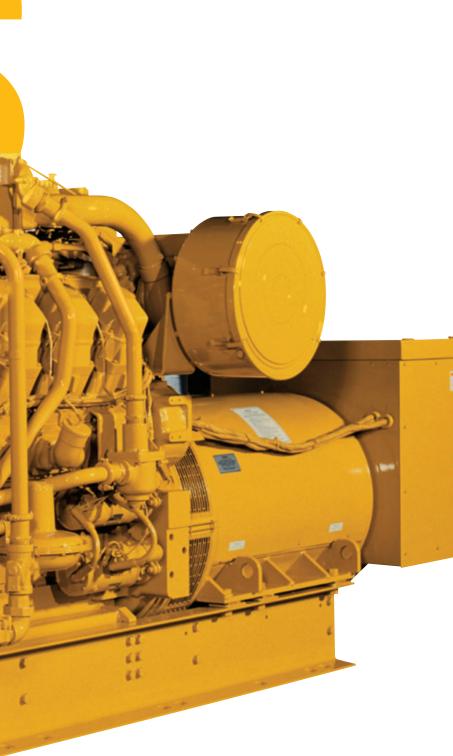


ULTIMATE RELIABILITY

With over 10,000 gas engine generators sold over the past 25 years, the G3500A Series is a proven performer in hundreds of different applications. With unparalleled uptime and ease of maintenance, consultants around the world continue to specify the A Series for its reliability.

THERMAL EFFICIENCY

No other gas generator set on the market can deliver the same diversity of heat for combined heat and power applications. The A Series can utilize up to a 127°C (260°F) jacket water circuit to deliver 15 psi (1 bar) steam while also providing 145 psi (10 bar) steam via exhaust heat recovery.





FUEL FLEXIBILITY

Whether your fuel is coal gas, landfill gas, propane, LNG, agricultural biogas, or associated gas, the A Series has a configuration specifically designed to handle a variety of fuels and applications. This flexibility also extends to extreme ambient conditions and altitudes without derate or risk of detonation.

50HZ PRODUCT PERFORMANCE: LOW ENERGY FUEL

PHYSICAL DATA	UN	ITS	G35	16A	G35 1	16A+	G35	20C	G35	520C
Bore / Stroke	mm	in	170 / 190	6.7 / 7.5	170 / 190	6.7 / 7.5	170 / 190	6.7 / 7.5	170 / 190	6.7 / 7.5
Displacement	I	in ³	69.0	4210	69.0	4210	86.0	5266	86.0	5266
Speed	rp	om	15	00	15	00	15	00	15	i00
Length ¹⁾	mm in		4906	193	4906	193	6316	249	6316	249
Width ¹⁾	mm	in	2155	85	2155	85	1828	72	1828	72
Height ¹⁾	mm	in	2051	81	2072	82	2254	89	2254	89
Dry weight genset	kg	lb	17,824	39,303	17,778	39,200	17,826	39,306	17,826	39,306

PERFORMANCE	UN	ITS	G35	i16A	G35	16A+	G35	20 C	G35	20C
Emission setting (NO _x)*	mg/m _n ³			1	500	1	500	1	500	1
Electrical power ²⁾	kW _{el}		1()41	1	105	19	84	19	91
Mean effective pressure	bar psi		12.4	180	13.2	191	18.9	274	18.9	274
Thermal output ³⁾	kW _{th}	·		88,475	1,245	70,803	2,075	118,004	2,717	154,521
Electrical efficiency ²⁾	0	6	32	1%	36	.8%	39.	1%	40.	1%
Thermal efficiency ³⁾	0	6	47	0%	41	.5%	41.	4%	46.	3%
Total efficiency	%		79	1%	78	.3%	80.	5%	86.	4%
Cat Ref. #			DM0	761-03	EM	2495	DM86	47-04	EM01	17-04

60HZ PRODUCT PERFORMANCE: LOW ENERGY FUEL

PHYSICAL DATA	UN	ITS	G35	16A	G35 1	16A+	G35	20C	G35	20C
Bore / Stroke	mm in		170 / 190	6.7 / 7.5	170 / 190	6.7 / 7.5	170 / 190	6.7 / 7.5	170 / 190	6.7 / 7.5
Displacement	I	in ³	69.0	4210	69.0	4210	86.0	5266	86.0	5266
Speed	rp	ım	12	00	12	00	12	200	15	00
Length ¹⁾	mm	in	4320	170	4913	193	6322	249	7557	298
Width ¹⁾	mm	in	2284	90	1736	68	1803	71	2170	85
Height ¹⁾	mm	in	1940	76	1940	76	2465	97	3212	126
Dry weight genset	kg	lb	12,549	27,670	12,549	27,670	17,339	38,232	22,425	49,447

PERFORMANCE	UN	ITS	G35	16A	G35	16A+	G35	20C	G35	20 C
Emission setting (NO _x)*	mg/m _n ³			2	500	1	439	1	500	1
Electrical power ²⁾	kW _{el}		8:	24	10	015	16	22	19	63
Mean effective pressure	bar psi		12.4	180	15.2	221	19.4	281	18.9	274
Thermal output ³⁾	kW _{th}			71,985	1,145	65,125	1,315	86,839	5,192	295,262
Electrical efficiency ²⁾	9	6	31.	0%	36	.1%	39.	7%	38.	7%
Thermal efficiency ³⁾	9	6	47.	6%	39	.9%	38.	1%	41.	4%
Total efficiency	9	6	78.	6%	76	.0%	77.	8%	80.	1%
Cat Ref. #	%		DM54	180-00	EM	4386	DM58	359-06	Conta	ct ASC

Notes

 Notes
 1) Transport dimensions of genset only. Accessory components must be taken into account separately.
 2) Series (A, B, C-60Hz, C-50Hz-low energy fuel) include losses for engine-mounted JW & AC mechanical coolant pumps. Series (C-50Hz-Natural Gas, E & H) exlcude engine-mounted JW & AC pumps. In accordance with ISO 3046/1 using standard low voltage (medium voltage for z 2000kW) generator at PF-1.0. Assumes methane number of MN80 for natural gas, MN 130 for low energy fuel.
 3) In accordance with nominal tolerances. Calculated as exhaust gas heat cooled (to 120°C) plus engine jacket water circuit heat.
 * NO₂ emissions as NO₂ dry exhaust gas @ 5% O₂ with 54°C (130°F) SCAC inlet temperature [48°C (118°F) for H Series]. -500 mg/m_a³ (1.0g/bhp-h) NO₃ performance available via engine setting for lean burn engines or via 3-way catalyst for rich burn engines. Ultra-low NO_x options available via SCR catalyst.

Low energy fuels (landfill gas, sewage gas, digester gas, coal mine methane) assumed to meet published engine-in contaminant limits with minimum heating value (LHV) = 18.0 MJ/m³, (457 Btu/scf). Natual gas fuels assumed to be mostly methane with a lower heating value (LHV) = 35.6 MJ/m³, (905 Btu/scf).

Specifications for special gases are available.

Data is representative and non-binding. Contact your Cat dealer for generator set, site and fuel-specific performance.

60HZ STANDBY

PHYSICAL DATA	UN	IITS	G35	16C	G3	512
Bore / Stroke	mm	in	170/215	6.7 / 7.5	170/190	6.7 / 7.5
Displacement	- I	in³	690.0	4,210	52	3,173
Speed	rı	om	1,8	00	1,8	800
Length ¹⁾	mm	in	5,553	219	5,224	205.7
Width ¹⁾	mm	in	1,828	72	2,286	90
Height ¹⁾	mm	in	2,340	92	2,525	99.4
Dry weight genset	kg	lb	14,161	31,226	12,500	27,500

PERFORMANCE	UN	ITS	G35	16C	G3	512
Emission setting (NO _x)*	mg/m _n ³	g/bhp-h	449	1	EPA C	ertified
Electrical power	k\	N _{el}	15	00	7!	50
Mean effective pressure	bar	psi	15.7	227	10.6	154
Thermal output ³⁾	$\mathrm{kW}_{\mathrm{th}}$	Btu/m	2,005	114,023	1,025	58,290
Electrical efficiency	(%	36.	1%	33.	4%
Thermal efficiency ³⁾	(%	48.	3%	49.	9%
Total efficiency	(%	84.	4%	83.	3%
Cat Ref. #			EM07	752-02	EM	1508

60HZ STANDBY-CONTINUED

PHYSICAL DATA	UN	ITS	G3	512	G34	12C
Bore / Stroke	mm	in	170/190	6.7 / 7.5	137/152	5.4 / 6.0
Displacement	- 1	in³	52	3,173	27	1,649
Speed	rŗ	om	1,8	00	1,8	800
Length ¹⁾	mm	in	5,224	205.7	4,140.2	163
Width ¹⁾	mm	in	2,286	90	2,057.4	81
Height ¹⁾	mm	in	2,525	99.4	2,616.2	103
Dry weight genset	kg	lb	12,500	27,500	6,412.8	14,140
PERFORMANCE		ITS	C 31	512	G34	120
		113	U J.	512	0.04	120
Emission setting (NO _x)*	mg/m _n ³	g/bhp-h	EPA Ce		851	2
	mg/m _n ³			ertified	851	
Emission setting (NO _x)*	mg/m _n ³	g/bhp-h	EPA Ce	ertified	851	2
Emission setting (NO _x)* Electrical power	mg/m _n ³ k\	g/bhp-h N _{el}	EPA Ce 1,0	ertified 00	851 50	2
Emission setting (NO _x)* Electrical power Mean effective pressure	mg/m _n ³ kV bar kW _{th}	g/bhp-h N _{el} psi	EPA Ce 1,0 14	ertified 00 204 70,877	851 50 13.9	2 00 201 58,011
Emission setting (NO _x)* Electrical power Mean effective pressure Thermal output ³⁾	mg/m _n ³ kV bar kW _{th}	g/bhp-h N _{el} psi Btu/m	EPA Ce 1,0 14 1,246	ertified 00 204 70,877 1%	851 50 13.9 605 32.0	2 00 201 58,011
Emission setting (NO _x)* Electrical power Mean effective pressure Thermal output ³⁾ Electrical efficiency	mg/m _n ³ kV bar kW _{th}	g/bhp-h N _{el} psi Btu/m	EPA Ce 1,0 14 1,246 35.	ertified 00 204 70,877 1%	851 50 13.9 605 32. 43.	2 00 201 58,011 4%

All standby ratings information above are at 1.0 power factor.

50HZ PRODUCT PERFORMANCE: NATURAL GAS

PHYSICAL DATA	UN	ITS	G35	16A	G35	12E	G35	12E	G35	12H	G35	16 C	G35	16E	G3!	5 20C	G35	20E	G35	16H	G35	20H
Bore / Stroke	mm	in	170 / 190	6.7 / 7.5	170 / 190	6.7 / 7.5	170 / 190	6.7 / 7.5	170 / 215	6.7 / 8.5	170 / 190	6.7 / 7.5	170 / 190	6.7 / 7.5	170 / 190	6.7 / 7.5	170 / 190	6.7 / 7.5	170 / 215	6.7 / 8.5	170 / 215	6.7 / 8.5
Displacement	I	in³	69.0	4210	52.0	3158	52.0	3158	59	3574	69.0	4210	69.0	4210	86.0	5266	86.0	5248	78.0	4765	97.5	5956
Speed	rpm		15	00	15	00	15	00	15	00	15	00	15	00	1!	500	15	00	15	00	15	00
Length ¹⁾	mm	in	4909	193	4625	182	4594	181	5536	218	5553	219	5523	217	6259	246	6893	271	5979	235	6411	252
Width ¹⁾	mm	in	2197	86	1828	72	1647	65	1952	77	1828	72	1828	72	1828	72	2001	79	1921	76	2218	87
Height ¹⁾	mm	in	2015	79	2255	89	2255	89	2308	91	2340	92	2340	92	2254	89	2727	107	2307	91	2413	95
Dry weight genset	kg	lb	12,384	27,306	11,347	25,021	12,460	27,475	14,100	31,085	14,161	31,226	13,366	29,472	17,826	39,306	17,826	39,306	16,397	36,156	22,300	49,163

PERFORMANCE	UN	IITS	G35	16A	G3!	512E	G3!	512E	G35	512H	G35	16C	G35	516E	G3	520C	G35	520E	G35	16H	G35	520H
Emission setting (NO _x)*	mg/m _n ³	g/bhp-h	834	2	500	1	500	1	500	1	500	1	500	1	500	1	500	1	500	1	500	1
Electrical power ²⁾	k'	W _{el}	98	33	1()16	12	211	15	515	16	03	16	603	1	991	20)22	20	27	25	519
Mean effective pressure	bar	psi	11.7 170		16.2	235	19.2	279	21	309	19.2	279	19.2	278	19.2	278	19.5	283	21.3	309	21.0	305
Thermal output ³⁾	kW _{th}	Btu/m	1,392	79,169	1,053	59,883	1,226	69,722	1,464	83,262	1,828	103,957	1,634	92,924	2,256	128,297	2,169	123,349	1,902	108,165	2,358	134,098
Electrical efficiency ²⁾	%		34.	8%	41	.4%	42	2%	44	.9%	40.	0%	41.	.6%	40	D.1%	41.	.5%	44.	7%	45	.3%
Thermal efficiency ³⁾		%	48.	3%	44	.7%	44	2%	42	.1%	46.	5%	44.	.4%	40	6.3%	45	.3%	41.	8%	41	.0%
Total efficiency		%	83.	1%	86	.1%	86	.4%	87	.0%	86.	5%	86.	.0%	8	6.4%	86	.8%	86.	5%	86	.3%
Cat Ref. #			DM51	58-02	DM8	801-06	DM8	311-07	EM1 ⁻	180-02	DM86	78-05	DM5	790-04	EMO)114-04	DM8	39211	EM05	00-02	EMOS	900-00

60HZ PRODUCT PE	KFUKN	IANCE:	NAIUK	AL GA	5															
PHYSICAL DATA	UN	IITS	G35	16A	G35	16A	G35	16B	G35	12H	G35	20C	G35	16C	G35	16H	G35	20C	G35	20H
Bore / Stroke	mm	in	170 / 190	6.7 / 7.5	170 / 190	6.7 / 7.5	170 / 190	6.7 / 7.5	170 / 215	6.7 / 8.5	170 / 190	6.7 / 7.5	170 / 190	6.7 / 7.5	170 / 215	6.7 / 8.5	170 / 190	6.7 / 7.5	170 / 215	6.7 / 8.5
Displacement	I	in³	78.0	4210	69.0	4210	69.0	4210	59	3574	86.0	5266	69.0	4210	78.0	4765	86.0	5270	97.5	5956
Speed	rpm		12	00	12	00	18	00	15	00	12	00	18	00	15	00	18	00	15	00
Length ¹⁾	mm	in	3280	129	4913	193	4203	165	6777	267	6312	249	5518	217	7395	291	6367	251	7668	302
Width ¹⁾	mm	in	1712	67	1736	68	2155	85	1911	76	1830	72	1830	72	2139	84	1997	79	2173	86
Height ¹⁾	mm	in	1860	73	1940	76	2419	95	2328	92	2340	92	2340	92	2402	95	2340	92	2473	97
Dry weight genset	kg	lb	12,549	27,670	12,549	27,670	12,618	27,823	15,740	34,700	17,339	38,232	13,748	30,315	18,315	40,384	17,215	37,959	24,800	54,675

PERFORMANCE	UN	IITS	G35	i16A	G35	i16A	G35	i16B	G35	512H	G35	20 C	G35	516C	G35	516H	G3!	520C	G3!	520H
Emission setting (NO _x)*	mg/m _n ³	g/bhp-h	9791	24	844	844 2		1	500	1	500	1	443	1	500	1	446	1	500	1
Electrical power ²⁾	k\	W _{el}	7!	55	7	779		800	14	190	16	26	16	675	20)05	20)82	2!	500
Mean effective pressure	bar	psi	11.7	170	11.7	11.7 170		189	21	309	19.4	282	16.6	241	21.3	309	16.6	241	21.0	305
Thermal output ³⁾	kW _{th}	Btu/m	1,146	65,178	1,087	61,819	1,830	104,071	1,464	83,262	1,765	100,374	2,139	121,643	1,902	108,165	2,662	151,386	2,358	134,098
Electrical efficiency ²⁾		%	33.	9%	35.	0%	35.	6%	44.	.6%	40.	3%	37	.7%	44.	.4%	38	.2%	45	.0%
Thermal efficiency ³⁾		%	51.	7%	48.	8%	50.	2%	42.	.0%	45.	2%	48	4%	41.	.7%	49	.4%	41	.0%
Total efficiency		%	85.	6%	83.8%		85.	.8%	86.	.6%	85.	5%	86	.1%	86.	.1%	87	.6%	86	.0%
Cat Ref. #			DM56	63-02	DM07	739-00	DM56	645-03	EM11	188-02	DM58	355-04	DM5	784-04	EMOS	508-00	EM0	080-03	EM0	912-01

Notes

Notes
1) Transport dimensions of genset only. Accessory components must be taken into account separately.
2) Series (A, B, C-60Hz, C-50Hz-low energy fuel) include losses for engine-mounted JW & AC mechanical coolant pumps. Series (C-50Hz-Natural Gas, E & H) exlcude engine-mounted JW & AC pumps.
In accordance with ISO 3046/1 using standard low voltage (medium voltage for > 2000kW) generator at PF=1.0. Assumes methane number of MN80 for natural gas, MN 130 for low energy fuel.
3) In accordance with nominal tolerances. Calculated as exhaust gas heat cooled (to 120°C) plus engine jacket water circuit heat.
* NQ, emissions as NO, dry exhaust gas @5 % 0_2 with 54°C (130°F) SACA inlet temperature [48°C (118°F) for H Series]. -500 mg/m_n³ (1.0g/bhp-h) NO_x performance available via engine setting for lean burn engines or via 3-way catalyst for rich burn engines. Ultra-low NO_x options available via SCR catalyst.

Low energy fuels (landfill gas, sewage gas, digester gas, coal mine methane) assumed to meet published engine-in contaminant limits with minimum heating value (LHV) = 18.0 MJ/m^{,3} (457 Btu/scf). Natual gas fuels assumed to be mostly methane with a lower heating value (LHV) = 35.6 MJ/m^{,3} (905 Btu/scf). Specifications for special gases are available. Data is representative and non-binding. Contact your Cat dealer for generator set, site and fuel-specific performance.

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For more information and to contact your local Cat dealer, visit catgaspower.com

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