## Cat® DG400 GC SPARK-IGNITED GENERATOR SETS





Image shown may not reflect actual configuration

# Standby 400 ekW 500 kVA – 60 Hz

UL2200: Evaluated by ETL to UL Standard for Safety UL2200 CSA: Designed in accordance to CSA22.2 standards NFPA: Facilitates compliance with NFPA110

Type 10: Product was tested to NFPA110 Type 10

#### **SPECIFICATIONS**

Engine				
Engine Model	21.9 L, V12, 4-cycle			
Bore x Stroke	128 mm x 142 mm (5.03 in x 5.6 in)			
Displacement	21.9 L (1336.42 in³)			
Compression Ratio	10.0:1			
Aspiration	Turbocharged-Aftercooled			
Fuel System	Carburetor, Down Draft			
Governor	Electronic			
Fuel Type	Natural Gas			
<b>Emission Certifications</b>	U.S. EPA Certified			
Rated Engine Speed	1800 rpm			
General				
Cylinder No.	12			
<b>Engine Governing</b>				
Frequency Regulation (Steady State)	+/- 0.25%			
Lubrication System				
Oil Pump Type	Gear			
Oil Filter Type	Twin Full-flow with Intercooler			
Crankcase Capacity – L (qts)	30 (31.7)			

Cooling System	
Cooling System Type	Pressurized Closed Recovery
Water Pump Flow – gpm (Ipm)	94 (356)
Coolant Heater Standard Voltage/ Wattage	120 V/2500 W
Fuel System	
Fuel Type	Natural Gas
Carburetor	Down Draft
Secondary Fuel Regulator	Standard
Fuel Shut Off Solenoid	Standard (Dual)
Operating Fuel Pressure	7" - 11" H <sub>2</sub> 0
Engine Electrical System	1
System Voltage	24 VDC
Battery Charger Alternator	Standard
Battery Voltage	(2) 12 VDC

### **ENGINEERED OPTIONS**

Engine System	Coolant Heater Ball Valves
Engine System	Fluid Containment Pans
Alternator System	3rd Breaker Systems

Control System	EMCP 4.2B
Control System	Battery Disconnect Switch
Camanatan Cat	Special Testing
Generator Set	Battery Box

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## **POWER RATINGS – NATURAL GAS**

	Natur	al Gas
Three-Phase 120/208 VAC @0.8pf	400 kW	Amps: 1389
Three-Phase 120/240 VAC @0.8pf	400 kW	Amps: 1204
Three-Phase 277/480 VAC @0.8pf	400 kW	Amps: 602
Three-Phase 346/600 VAC @0.8pf	400 kW	Amps: 481

### STARTING CAPABILITIES (sKVA)

sKVA vs. Voltage Dip														
277/480 VAC 208/240 V					08/240 VA	/C								
Alternator	kW	10%	15%	20%	25%	30%	35%	kW	10%	15%	20%	25%	30%	35%
Standard	400	387	581	775	968	1162	1356	400	345	570	835	1100	1450	1710
Upsize 1	555	457	686	914	1143	1371	1600	559	429	643	857	1071	1286	1500
Upsize 2	642	471	707	943	1179	1414	1650	_	_	_	_	_	_	_

#### **FUEL CONSUMPTION RATES\***

Natural Gas – ft³/hr (m³/hr)				
Percent Load	Standby			
25%	1856 (52.6)			
50%	2845 (80.5)			
75%	3833 (108.5)			
100% 4823 (136.6)				

<sup>\*</sup>Fuel supply installation must accommodate fuel consumption rates at 100% load.

#### **COOLING**

		Standby
Air Flow (inlet air combustion and radiator)	ft³/min (m³/min)	25,100 (711)
Coolant Flow per Minute	gpm (lpm)	211 (800)
Coolant System Capacity	gal (Liters)	23 (87)
Heat Rejection to Coolant	BTU/hr	1,102,122
Maximum Operating Ambient Temperature	°F (°C)	122 (50)
Maximum Operating Ambient Temperature (before derate)	See Bulletin No	0199270SSD
Maximum Radiator Backpressure	in H₂O (kPa)	0.5 (0.12)

#### **COMBUSTION AIR REQUIREMENTS**

		Standby
Flow at Rated Power	cfm (m³/min)	750 (21)

### **ENGINE**

	Standby
rpm	1800
hp	636
psi	209.1
	hp

<sup>\*\*</sup>Refer to "Emissions Data Sheet" for maximum bhp for EPA and SCAQMD permitting purposes.

#### **EXHAUST**

		Standby
Exhaust Flow (Rated Output)	cfm (m³/min)	2720 (77)
Maximum Exhaust Backpressure	inHg (kPa)	0.75 (2.54)
Exhaust Temp (Rated Output)	°F (°C)	1350 (732)

Deration – For power deration rates reference, please consult Cat LEHE1699-00.

