

G55LTA

Liquid Cooled Gas Engine Generator Sets

Standby Power Rating

55 kW 60 Hz



5.4L ENGINE

Naturally Aspirated
Gaseous Fueled
G55LTA

Meets 2009 EPA Emission Regulations

STANDARD EQUIPMENT

- All input connections in one single area
- High coolant temperature shutdown
- Low oil pressure shutdown
- Low coolant level automatic shutdown
- Low fuel pressure
- Overspeed automatic shutdown
- Adjustable cranking timer
- Adjustable exercise timer
- Oil drain extension
- Cool flow radiator
- Closed coolant recovery system
- UV/Ozone resistant hoses
- Watertight state of the art electrical connectors
- Mainline circuit breaker
- Oil drain extension to frame rail
- Radiator drain extension
- Battery charge alternator
- 10 Amp static battery charger
- Battery and battery cables
- Battery rack
- Fan and belt guards
- Isochronous governor
- Coolant Heater

FEATURES

- Innovative design and fully prototype tested
- UL2200 Listed
- Solid state frequency compensated digital voltage regulator
- Dynamic and static battery charger
- Sound attenuated acoustically designed enclosure
- Low noise level exercise mode
- Acoustically designed engine cooling system
- High flow low noise factory engineered exhaust system
- State of the art digital control system with H-100 microprocessor control panel
- Built-in kW, kVAR and power factor meters
- Watertight electrical connectors
- Rodent proof construction
- High efficiency, low distortion alternator
- Vibration isolated from mounting base
- All components easily accessible for maintenance
- Electrostatically applied powder paint

OLYMPIAN™

APPLICATION & ENGINEERING DATA

G55LTA

GENERATOR SPECIFICATIONS

TYPE	Synchronous
ROTOR INSULATION.....	Class H
STATOR INSULATION.....	Class H
TOTAL HARMONIC DISTORTION.....	<3.5%
TELEPHONE INTERFERENCE FACTOR (TIF)	<50
ALTERNATOR OUTPUT LEADS 3 PHASE	4 wire
BEARINGS.....	Sealed Ball
COUPLING.....	Flexible Disc
LOAD CAPACITY (STANDBY RATING).....	55 kW
EXCITATION SYSTEM.....	Brushless

NOTE: Generator rating and performance in accordance with ISO8528-5, BS5514, SAE J1349, ISO3046, and DIN6271 standards.

VOLTAGE REGULATOR

TYPE	Full Digital
SENSING	3 Phase
REGULATION.....	± 1/4%
FEATURES.....	Built into H-100 Control Panel V/F Adjustable Adjustable Voltage and Gain

GENERATOR FEATURES

- Revolving field heavy duty generator
- Directly connected to the engine
- Operating temperature rise 120 °C above a 40 °C ambient
- Insulation is Class H rated at 150 °C rise
- All prototype models have passed three phase short circuit testing

CONTROL PANEL FEATURES

- TWO FOUR LINE LCD DISPLAYS READ:
 - Voltage (all phases)
 - Power factor
 - kVAR
 - Engine speed
 - Run hours
 - Fault history
 - Coolant temperature
 - Low oil pressure shutdown
 - Overvoltage
 - Low coolant level
 - Not in auto position (flashing light)
 - Current (all phases)
 - kW
 - Transfer switch status
 - Low fuel pressure
 - Service reminders
 - Oil pressure
 - Time and date
 - High coolant temperature shutdown
 - Overspeed
 - Low coolant level
 - Exercise speed
- INTERNAL FUNCTIONS:
 - I²T function for alternator protection from line to neutral and line to line short circuits
 - Emergency stop
 - Programmable auto crank function
 - 2 wire start for any transfer switch
 - Built-in 7 day exerciser
 - Adjustable engine speed at exerciser
 - RS232 port for GenLink® control
 - RS485 port remote communication
 - Canbus addressable
 - Governor controller and voltage regulator are built into the master control board
 - Temperature range -40 °C to 70 °C

ENGINE SPECIFICATIONS

ENGINE.....	Gaseous
TYPE	V Type
CYLINDERS.....	8
DISPLACEMENT.....	5.4 Liter
BORE	3.55
STROKE.....	4.17
COMPRESSION RATIO.....	9:1
INTAKE AIR SYSTEM.....	Naturally Aspirated
VALVE SEATS.....	Hardened
LIFTER TYPE.....	Hydraulic

GOVERNOR SPECIFICATIONS

TYPE	Electronic
FREQUENCY REGULATION.....	Isochronous
STEADY STATE REGULATION.....	± 0.25%
All functions are factory preset	
Individual parameter adjustments can be made via GenLink®	

ENGINE LUBRICATION SYSTEM

OIL PUMP	Gear
OIL FILTER.....	Full flow spin-on cartridge
CRANKCASE CAPACITY.....	5 Quarts

ENGINE COOLING SYSTEM

TYPE	Closed
WATER PUMP.....	Belt driven
FAN SPEED	2090
FAN DIAMETER.....	22 inches
FAN MODE.....	Pusher
COOLANT HEATER.....	240V 2000 Watt

FUEL SYSTEM

FUEL TYPE.....	Natural gas, Propane vapor
CARBURETOR.....	Down Draft
SECONDARY FUEL REGULATOR.....	Standard
FUEL SHUT OFF SOLENOID	Standard
OPERATING FUEL PRESSURE.....	5" - 14" H ₂ O

ELECTRICAL SYSTEM

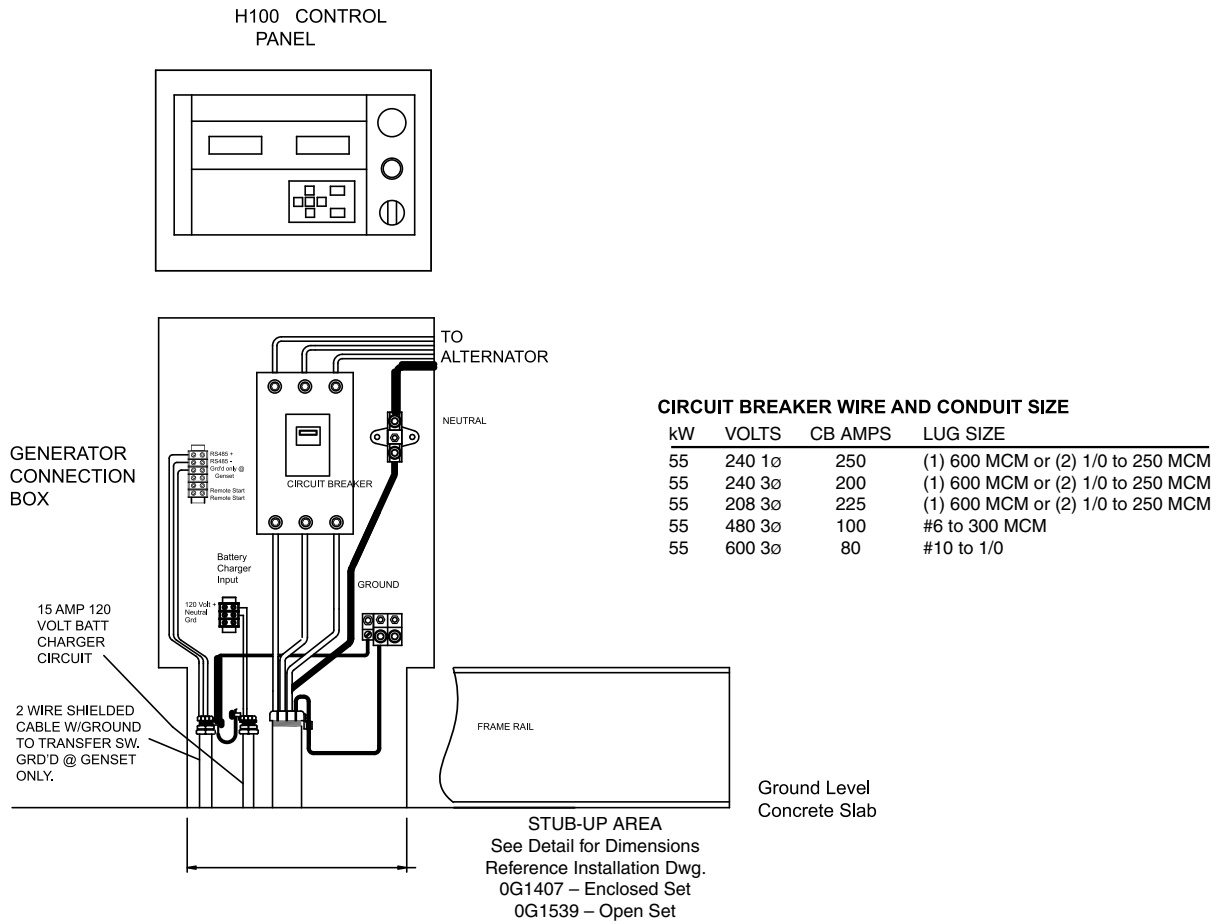
BATTERY CHARGE ALTERNATOR.....	12V 30 Amp
STATIC BATTERY CHARGER	12V 10 Amp
BATTERY.....	Group 24F, 525CCA
SYSTEM VOLTAGE.....	12 Volts

OPERATING DATA

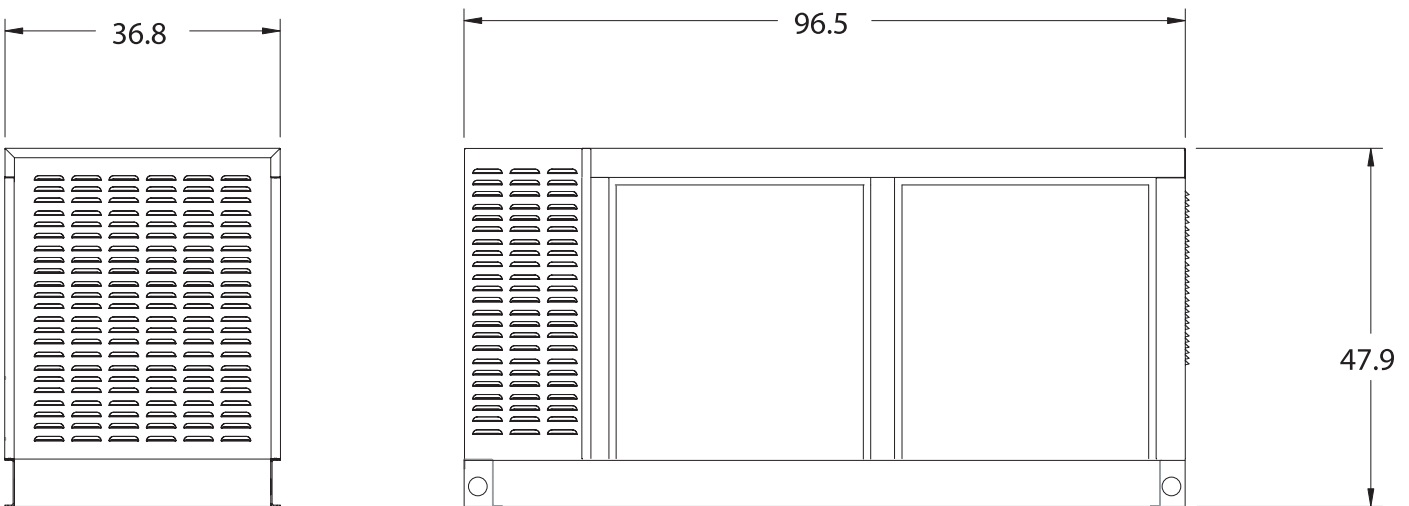
		G55LTA		
KW RATING		55		
ENGINE SIZE		5.4 Liter V-8		
GENERATOR OUTPUT VOLTAGE/KW - 60Hz		KW	AMP	CB Size
120/240V, 1-phase, 1.0 pf		55	229	250
120/240V, 3-phase, 0.8 pf		55	165	200
120/208V, 3-phase, 0.8 pf		55	191	225
277/480V, 3-phase, 0.8 pf		55	83	100
600 V, 3-phase, 0.8 pf		55	66	80
GENERATOR LOCKED ROTOR KVA AVAILABLE @ VOLTAGE DIP OF 35%				
Single phase or 208 3-phase		110		
480V 3-phase		146		
ENGINE FUEL CONSUMPTION (Natural Gas) (Propane)		Natural Gas	Propane	
		(ft ³ /hr.)	(gal/hr.)	cu ft/hr
Exercise cycle		95	1.04	38.2
25% of rated load		204	2.23	82.1
50% of rated load		392	4.29	157.9
75% of rated load		547	5.99	220.4
100% of rated load		756	8.28	304.7
ENGINE COOLING				
Air flow (inlet air including alternator and combustion air) ft ³ /min.		4,350		
System coolant capacity US gal.		4.0		
Heat rejection to coolant BTU/hr.		210,000		
Max. operating air temp. on radiator °C (°F)		60 (150)		
Max. ambient temperature °C (°F)		50 (140)		
COMBUSTION AIR REQUIREMENTS				
Flow at rated power 60 Hz cfm		163		
SOUND EMISSIONS IN DBA				
Exercising at 7 meters		59		
Normal operation at 7 meters		73		
EXHAUST				
Exhaust flow at rated output 60 Hz cfm		414		
Exhaust temp. at muffler outlet °F		800		
ENGINE PARAMETERS				
Rated synchronous RPM 60 Hz		1800		
HP at rated KW 60 Hz		88		
POWER ADJUSTMENT FOR AMBIENT CONDITIONS				
Temperature Deration				
3% for every 10 °C above - °C		25		
1.65% for every 10 °F above - °F		77		
Altitude Deration				
1% for every 100 m above - m		183		
3% for every 1000 ft. above - ft.		600		

RATING: All three phases units are rated at 0.8 power factor. All single phase units are rated at 1.0 power factor. STANDBY RATING: Standby ratings apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Ratings are in accordance with ISO-3046-1. Design and specifications are subject to change without notice.

INTERCONNECTIONS



INSTALLATION LAYOUT



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