

# QT055

## Liquid Cooled Gas Engine Generator Sets

Standby Power Rating  
55 kW 60 Hz



### GENERAC 5.4L ENGINE

Naturally Aspirated  
Gaseous Fueled

## 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
- 2 Amp static battery charger
- Battery and battery cables
- Battery rack
- Fan and belt guards
- Isochronous governor

## 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
- Quiet test for low noise level exercise
- 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 Generac designed alternator
- Vibration isolated from mounting base
- Matching Generac transfer switches engineered and tested to work as a system
- All components easily accessible for maintenance
- Electrostatically applied powder paint

**GENERAC**<sup>®</sup>  
POWER SYSTEMS, INC.

## 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 .....	Direct

**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)
  - Transfer SW type
  - 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:
  - IFT 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
  - Communicates with the Generac HTS 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

MAKE .....	Generac
MODEL .....	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

## 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 <sub>2</sub> O

## ELECTRICAL SYSTEM

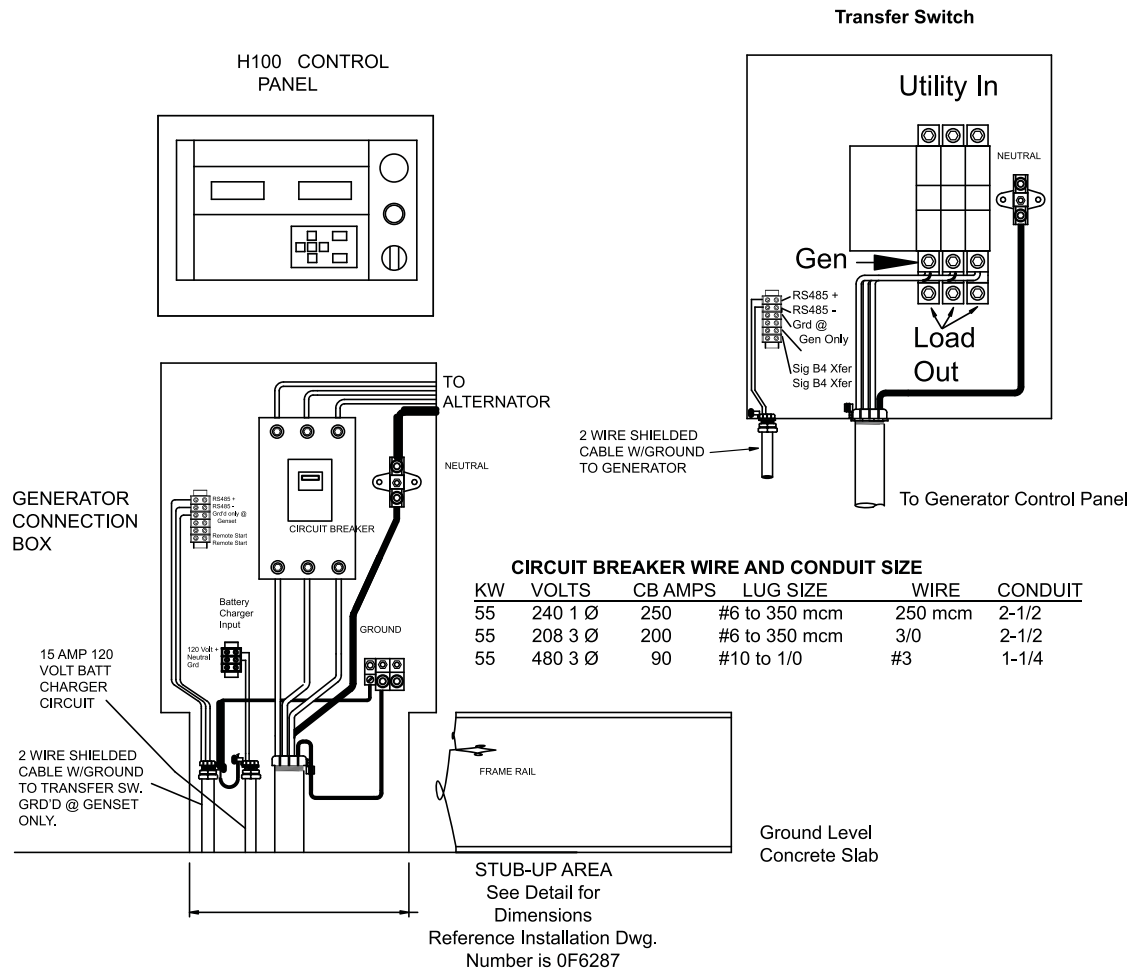
BATTERY CHARGE ALTERNATOR .....	12V 30 Amp
STATIC BATTERY CHARGER .....	12V 2 Amp
RECOMMENDED BATTERY .....	Group 24F, 525CCA
SYSTEM VOLTAGE .....	12 Volts

QT055

## OPERATING DATA

		<b>QT055</b>		
<b>KW RATING</b>		55		
<b>ENGINE SIZE</b>		5.4 Liter V-8		
<b>GENERATOR OUTPUT VOLTAGE/KW - 60Hz</b>		<b>KW</b>	<b>AMP</b>	<b>CB Size</b>
120/240V, 1-phase, 1.0 pf		55	229	250
120/208V, 3-phase, 0.8 pf		55	191	200
277/480V, 3-phase, 0.8 pf		55	83	90
<b>GENERATOR LOCKED ROTOR KVA AVAILABLE @ VOLTAGE DIP OF 35%</b>				
Single phase or 208 3-phase		115		
480V 3-phase		130		
<b>ENGINE FUEL CONSUMPTION (Natural Gas) (Propane)</b>		<b>Natural Gas</b>	<b>Propane</b>	
		(ft <sup>3</sup> /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
<b>ENGINE COOLING</b>				
Air flow (inlet air including alternator and combustion air)		ft <sup>3</sup> /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)	
<b>COMBUSTION AIR REQUIREMENTS</b>				
Flow at rated power 60 Hz		cfm	163	
<b>SOUND EMISSIONS IN DBA</b>				
Exercising at 7 meters		59		
Full load at 7 meters		73		
<b>EXHAUST</b>				
Exhaust flow at rated output 60 Hz		cfm	414	
Exhaust temp. at muffler outlet		°F	800	
<b>ENGINE PARAMETERS</b>				
Rated synchronous RPM		60 Hz	1800	
HP at rated KW		60 Hz	88	
<b>POWER ADJUSTMENT FOR AMBIENT CONDITIONS</b>				
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		

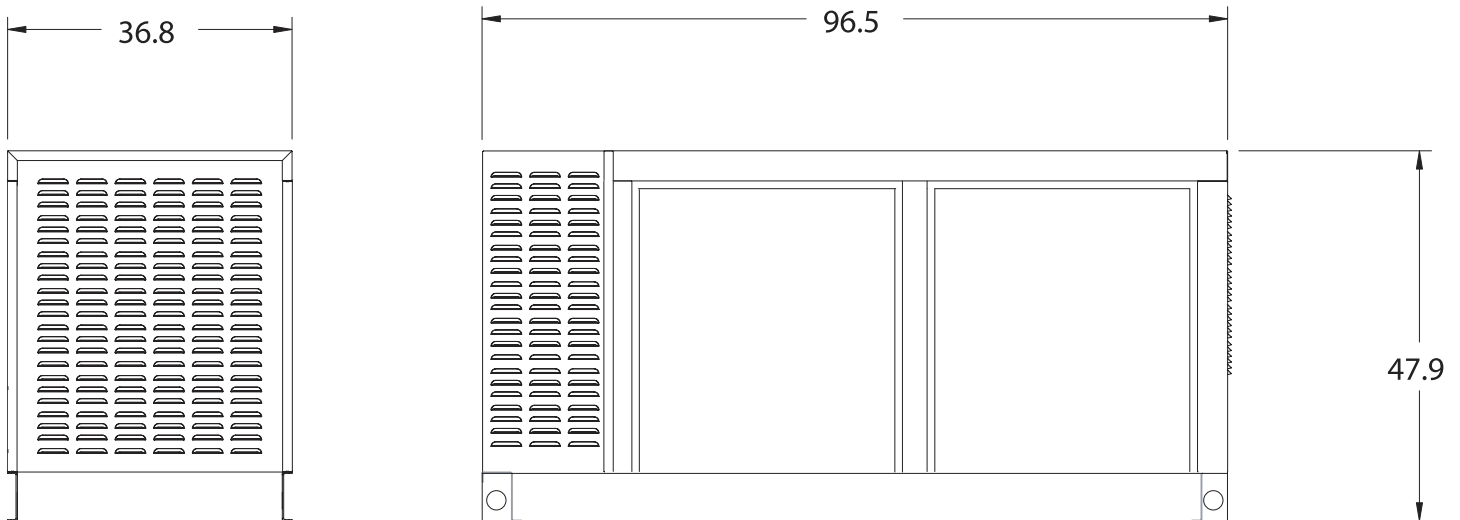
RATING: All three phases units are rated at 0.8 power factor. All single phase units are rated at 1.0 power factor. STANDBY RATING: Standby ratings apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. There is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



**CIRCUIT BREAKER WIRE AND CONDUIT SIZE**

KW	VOLTS	CB AMPS	LUG SIZE	WIRE	CONDUIT
55	240 1 Ø	250	#6 to 350 mcm	250 mcm	2-1/2
55	208 3 Ø	200	#6 to 350 mcm	3/0	2-1/2
55	480 3 Ø	90	#10 to 1/0	#3	1-1/4

## INSTALLATION LAYOUT



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