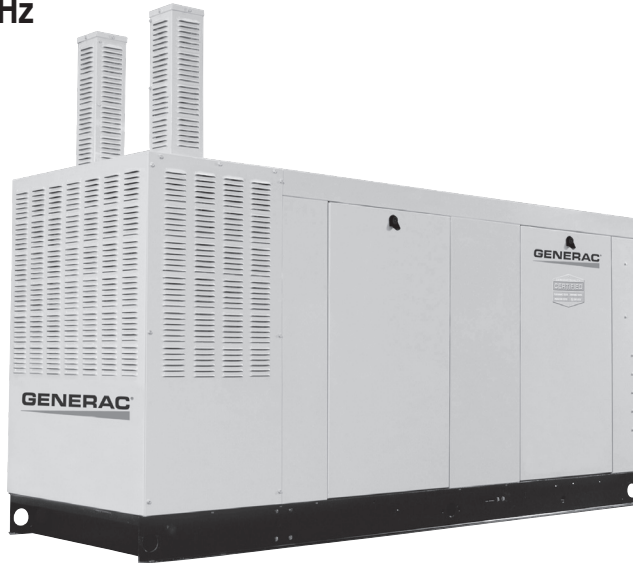


# QT100A

## Liquid Cooled Gas Engine Generator Sets

Standby Power Rating  
100 kW 60 Hz



### GENERAC 6.8L ENGINE

Naturally Aspirated  
Gaseous Fueled  
Gear Drive  
QT100A

Meets 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
- 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®

## 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.....	Gear Drive
LOAD CAPACITY (STANDBY RATING).....	100 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
- Quiet drive coupling
- 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)
  - ATS selection
  - 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:
  - I<sup>2</sup>T 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.....	10
DISPLACEMENT.....	6.8 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.....	1670
FAN DIAMETER.....	26 inches
FAN MODE.....	Puller
COOLANT HEATER.....	1500W 120V

## FUEL SYSTEM

FUEL TYPE.....	Natural gas, propane vapor
CARBURETOR.....	Down Draft
SECONDARY FUEL REGULATOR.....	Standard
FUEL SHUT OFF SOLENOID .....	Standard
OPERATING FUEL PRESSURE.....	11" - 14" H <sub>2</sub> O

## ELECTRICAL SYSTEM

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

QT100A

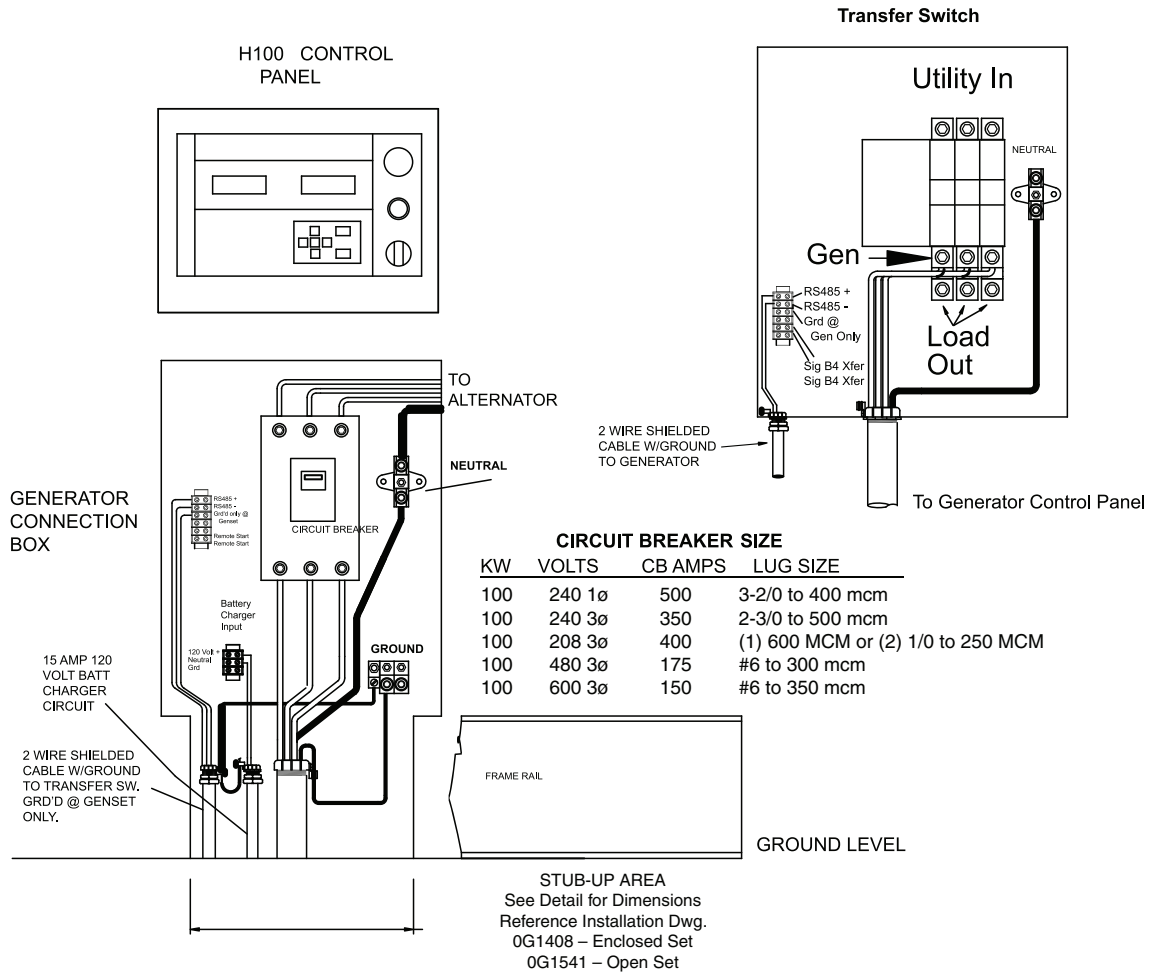
## OPERATING DATA

		QT100A			
<b>KW RATING</b>		100			
<b>ENGINE SIZE</b>		6.8 Liter V-10			
<b>GENERATOR OUTPUT VOLTAGE/KW - 60Hz</b>		<b>KW</b>	<b>AMP</b>	<b>CB Size</b>	
120/240V, 1-phase, 1.0 pf		100	417	500	
120/240V, 3-phase, 0.8 pf		100	300	350	
120/208V, 3-phase, 0.8 pf		100	347	400	
277/480V, 3-phase, 0.8 pf		100	150	175	
600V, 3-phase, 0.8 pf		100	120	150	
<b>GENERATOR LOCKED ROTOR KVA AVAILABLE @ VOLTAGE DIP OF 35%</b>					
Single phase or 208 3-phase				206	
480V 3-phase				275	
<b>ENGINE FUEL CONSUMPTION (Natural Gas) (Propane)</b>		<b>Natural Gas</b>		<b>Propane</b>	
		(ft <sup>3</sup> /hr.)	(lbs/hr)	(ft <sup>3</sup> /hr.)	(gal/hr.) (lbs/hr)
Exercise cycle		135	5.67	54.5	1.4 5.94
10% of rated load		307	12.9	119	3.3 14
25% of rated load		488	20.5	193	5.3 22.76
50% of rated load		798	33.5	312	8.6 36.84
75% of rated load		1059	44.47	419	11.5 49.51
100% of rated load*		1339	56.24	533	14.6 62.9
<b>ENGINE COOLING</b>					
Air flow (inlet air including alternator and combustion air) ft <sup>3</sup> /min				5,500	
System coolant capacity US gal.				4.5	
Heat rejection to coolant BTU/hr.				342,000	
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				262	
<b>SOUND EMISSIONS IN DBA</b>					
Exercising at 7 meters				61	
Normal operation at 7 meters				72	
<b>EXHAUST</b>					
Exhaust flow at rated output 60 Hz cfm				888	
Exhaust temp. at muffler outlet °F				960	
<b>ENGINE PARAMETERS</b>					
Rated synchronous RPM 60 Hz				2300	
HP at rated KW** 60 Hz				162.3	
<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	

\* Refer to "Emissions Data Sheets" for maximum fuel flow for EPA and SCAQMD permitting purposes.

\*\* Refer to "Emissions Data Sheets" for maximum bHP for EPA and SCAQMD permitting purposes.

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.



# INSTALLATION LAYOUT

