QT150

## **Liquid Cooled Gas Engine Generator Sets**



### **GENERAC 6.8L ENGINE**

Naturally Aspirated Gaseous Fueled 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
- 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



## **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)	150 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 pressureService 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	
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	2200
FAN DIAMETER	26 inches
FAN MODE	Puller

## **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 2 Amp
RECOMMENDED BATTERY	Group 24F, 525CCA
SYSTEM VOLTAGE	12 Volts



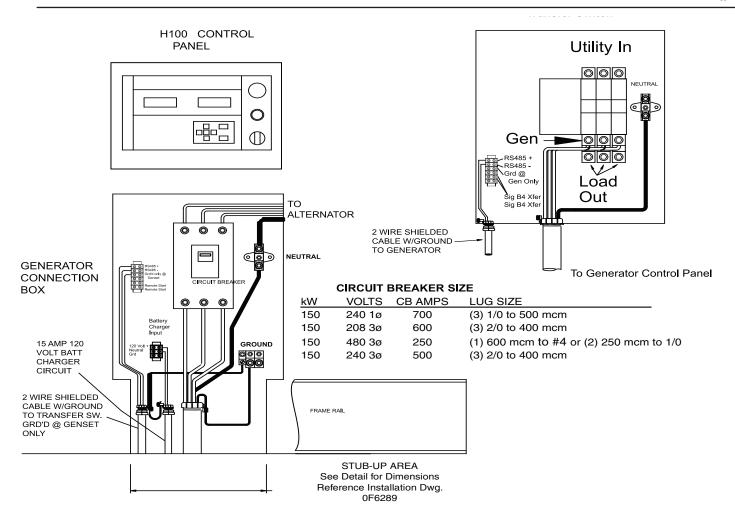
#### QT150

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OPERATING DATA		QT150	
KW RATING		150	
ENGINE SIZE		6.8 Liter V-10	
GENERATOR OUTPUT VOLTAGE/KW - 60Hz 120/240V, 1-phase, 1.0 pf 120/208V, 3-phase, 0.8 pf 277/480V, 3-phase, 0.8 pf	<b>KW</b> 150 150 150	<b>AMP</b> 625 520 226	<b>CB Size</b> 700 600 250
GENERATOR LOCKED ROTOR KVA  AVAILABLE @ VOLTAGE DIP OF 35%  Single phase or 208 3-phase  480V 3-phase	320 350		
Exercise cycle 25% of rated load 50% of rated load 75% of rated load 100% of rated load*	Natural Gas (ft <sup>3</sup> /hr.) 155 556 1070 1491 2061	(gal/hr.) 1.70 6.09 11.72 16.33 22.57	cu ft/hr 62.6 224.1 431.3 600.9 830.6
ENGINE COOLING  Air flow (inlet air including alternator and combustion air) ft <sup>3</sup> /min.  Coolant capacity US gal.  Heat rejection to coolant BTU/hr.  Max. operating air temp. on radiator °C (°F)  Max. ambient temperature °C (°F)		7,800 4.5 568,000 60 (150) 50 (140)	
COMBUSTION AIR REQUIREMENTS Flow at rated power 60 Hz cfm	410		
SOUND EMISSIONS IN DBA  Exercising at 7 meters  Normal operation at 7 meters		66 79	
EXHAUST  Exhaust flow at rated output 60 Hz cfm Exhaust temp. at muffler outlet °F		1535 1100	
ENGINE PARAMETERS  Rated synchronous RPM 60 Hz  HP at rated KW** 60 Hz		3600 254	
POWER ADJUSTMENT FOR AMBIENT CONDITIONS  Temperature Deration  3% for every 10 °C above - °C  1.65% for every 10 °F above - °F  Altitude Deration  1% for every 100 m above - m  3% for every 1000 ft. above - ft.		25 77 182 600	

 <sup>\*</sup> 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**

