GENERAC® STANDBY GENERATORS

100 kW

Liquid-Cooled Engine Generator Sets

Standby Power Rating

Model QT100 (Bisque) - 100 kW 60Hz

INCLUDES:

- Generac Naturally Aspirated Gaseous Fueled 6.8L Engine
- Two Line LCD Tri-lingual Digital Nexus™ Controller
- Isochronous Electronic Governor
- Closed Coolant Recovery System
- Smart Battery Charger
- UV/Ozone Resistant Hoses
- ±1% Voltage Regulation
- Natural Gas or LP Operation
- 2 Year Limited Warranty
- UL 2200 Listed

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GOOD HOUSEKEEPING

QUIET TEST™

Meets 2010 EPA Emission Regulations
Meets CA/MA emissions requirement with optional catalyst

FEATURES

- **INNOVATIVE DESIGN & PROTOTYPE TESTING** are key components of GENERAC'S success in "IMPROVING POWER BY DESIGN." But it doesn't stop there. Total commitment to component testing, reliability testing, environmental testing, destruction and life testing, plus testing to applicable CSA, NEMA, EGSA, and other standards, allows you to choose GENERAC POWER SYSTEMS with the confidence that these systems will provide superior performance.

- **TEST CRITERIA:**
  - ✓ **PROTOTYPE TESTED**
  - ✓ **SYSTEM TORSIONAL TESTED**
  - ✓ **NEMA MG1-22 EVALUATION**
  - ✓ **MOTOR STARTING ABILITY**

- **SOLID-STATE, FREQUENCY COMPENSATED VOLTAGE REGULATION.** This state-of-the-art power maximizing regulation system is standard on all Generac models. It provides optimized FAST RESPONSE to changing load conditions and MAXIMUM MOTOR STARTING CAPABILITY by electronically torque-matching the surge loads to the engine. An unequalled ±1% voltage regulation.

- **SINGLE SOURCE SERVICE RESPONSE** from Generac's extensive dealer network provides parts and service know-how for the entire unit, from the engine to the smallest electronic component.

- **GENERAC TRANSFER SWITCHES.** Long life and reliability are synonymous with GENERAC POWER SYSTEMS. One reason for this confidence is that the GENERAC product line includes its own transfer systems and controls for total system compatibility.

GENERAC®

Application & Engineering Data — QT100

GENERATOR SPECIFICATIONS

TYPE	Synchronous
ROTOR INSULATION	Class H
STATOR INSULATION	Class H
TELEPHONE INTERFERENCE FACTOR (TIF)	<50
ALTERNATOR OUTPUT LEADS 3-PHASE/1-PHASE	6/4 wire
BEARINGS	Sealed Ball
COUPLING	Gear Drive
LOAD CAPACITY (STANDBY RATING)	100 kW
EXCITATION SYSTEM	Brushless

VOLTAGE REGULATION

TYPE	Full Digital
SENSING	Three Phase
REGULATION	± 0.25%

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 F rated at 130 °C rise
All models are fully prototyped tested

ENCLOSURE FEATURES

Galvanized steel or aluminum weather protective enclosure options available	Ensures protection against mother nature. Electrostatically applied textured epoxy paint for added durability.
Enclosed critical grade muffler	Quiet, critical grade muffler is mounted inside the unit to prevent injuries.
Small, compact, attractive	Makes for an easy, eye appealing installation.

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%

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

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_2O

ELECTRICAL SYSTEM

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

Rating definitions - Standby: Applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. (All ratings in accordance with BS5514, ISO3046 and DIN6271). (All ratings in accordance with BS5514, ISO3046, ISO8528, SAE J1349 and DIN6271).

Generac® Standby Generator - 100 kW

GENERAC

OPERATING DATA

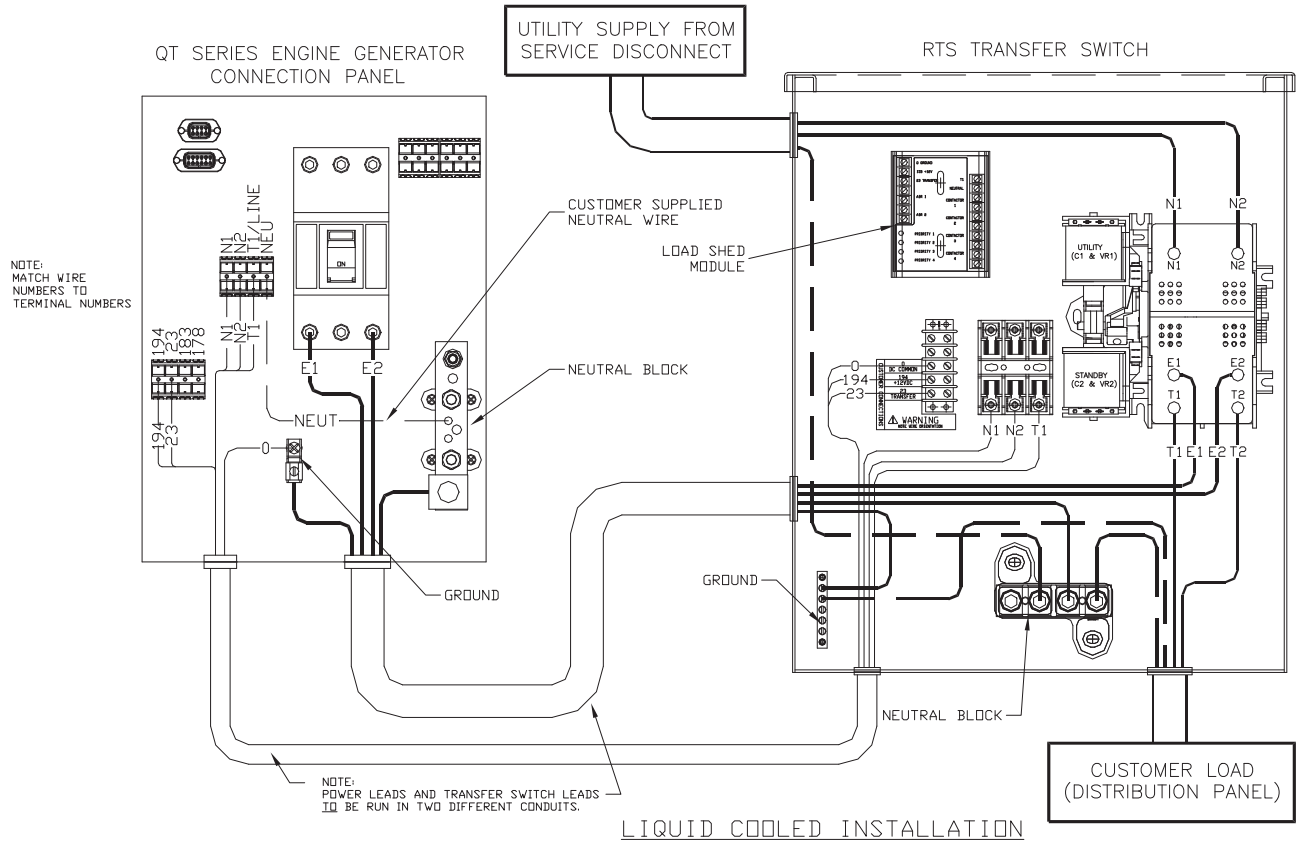
KW RATING (LP/NG)	100				
ENGINE SIZE	6.8 Liter V-10				
GENERATOR OUTPUT VOLTAGE/KW - 60Hz	**LP**	**AMP**	**NG**	**AMP**	**CB Size**
120/240V, 1-phase, 1.0 pf	100	417	89	371	450
120/208V, 3-phase, 0.8 pf	100	347	94	326	400
120/240V, 3-phase, 0.8 pf	100	301	94	283	350
277/480V, 3-phase, 0.8 pf	100	150	94	141	175

GENERATOR LOCKED ROTOR KVA AVAILABLE @ VOLTAGE DIP OF 35%	
Single phase or 208-240 3-phase	200
480V 3-phase	240

ENGINE FUEL CONSUMPTION (Natural Gas) (Propane)	**Natural Gas** (ft^3/hr.)	**Propane** (gal/hr.)	**Propane** (ft^3/hr.)
Exercise cycle	130	1.4	52
25% of rated load	371	4.1	149
50% of rated load	713	7.9	287
75% of rated load	991	11	400
100% of rated load	1260	13.9	507

ENGINE COOLING		
Air flow (inlet air including alternator and combustion air)	ft^3/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)
COMBUSTION AIR REQUIREMENTS		
Flow at rated power 60 Hz	cfm	262
SOUND EMISSIONS IN DBA		
Exercising at 7 meters		61
Normal operation at 7 meters		72
EXHAUST		
Exhaust flow at rated output 60 Hz	cfm	888
Exhaust temp. at muffler outlet	°C (°F)	516 (960)
ENGINE PARAMETERS		
Rated synchronous RPM	60 Hz	2300
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.
kW rating is based on LPG Fuel and may derate with natural gas.



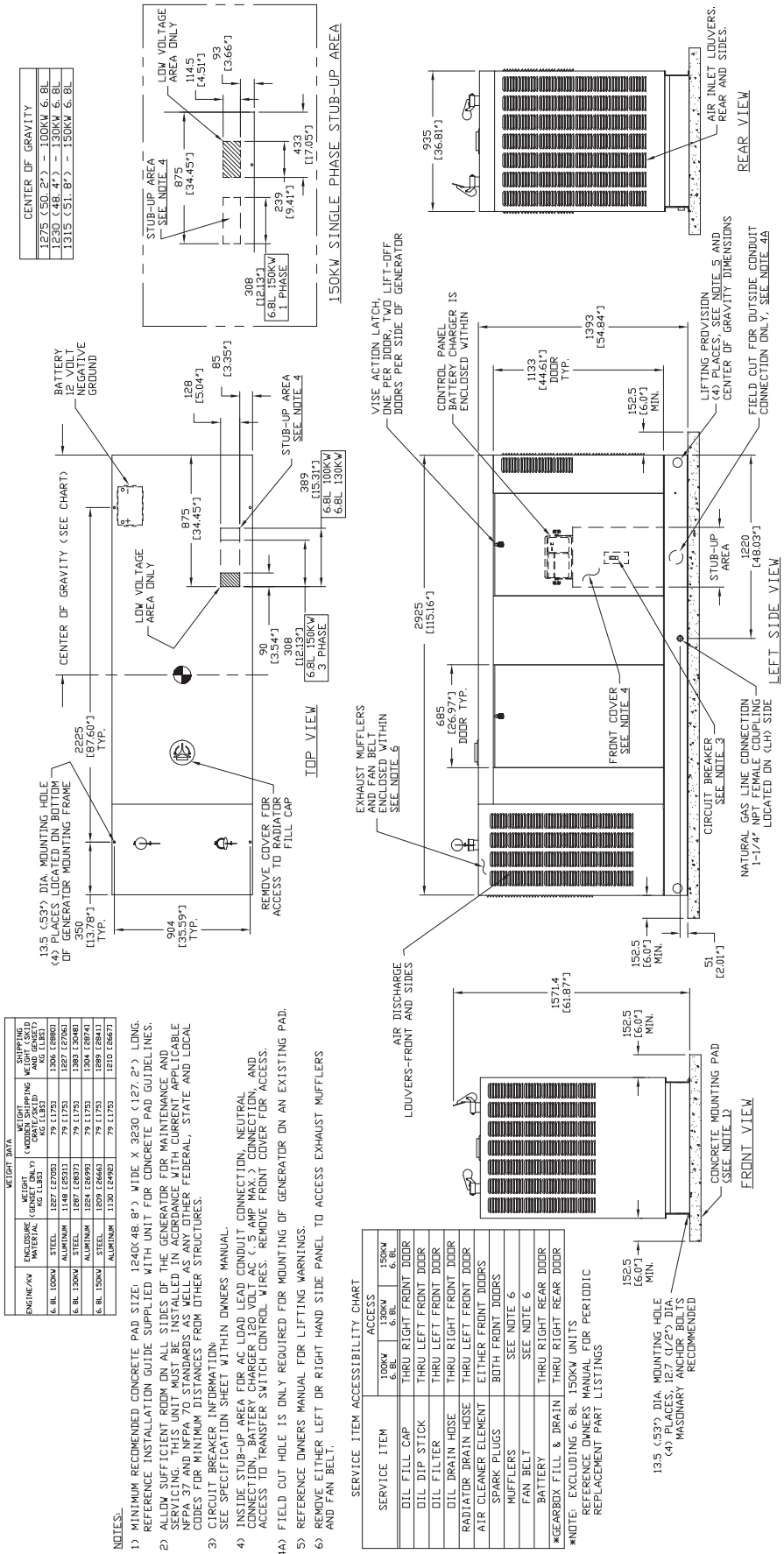
CIRCUIT BREAKER WIRE AND CONDUIT SIZE

kW	VOLTS	CB AMPS	LUG SIZE
100	240 1 Ø	500	3-2/0 to 400 mcm
100	240 3 Ø	350	(1) 600 mcm to #4 or (2) 250 mcm to 1/0
100	208 3 Ø	400	(1) 600 mcm to #4 or (2) 250 mcm to 1/0
100	480 3 Ø	175	#6 to 300 mcm

NEXUS™ CONTROL FEATURES

2-Line Plain Text LCD Display	Simple user interface for ease of operation
Mode Switch -Auto	Automatic Start on Utility failure. 7 day exerciser
-Off	Stops unit. Power is removed. Control and charger still operate.
-Manual/Test (start)	Start with starter control, unit stays on. If utility fails, transfer to load takes place.
Programmable start delay between 10-30 seconds	Standard
Engine Start Sequence	Cyclic cranking: 16 sec. on, 7 rest (90 sec. maximum duration)
Engine Warm-up	5 seconds
Engine Cool-Down	1 minute
Starter Lock-out	Starter cannot re-engage until 5 sec. after engine has stopped.
Smart Battery Charger	Standard
Automatic Voltage Regulation with Over and Under Voltage Protection	Standard
Automatic Low Oil Pressure Shutdown	Standard
Overspeed Shutdown	Standard, 72Hz
High Temperature Shutdown	Standard
Overcrank Protection	Standard
Safety Fused	Standard
Failure to Transfer Protection	Standard
Low Battery Protection	Standard
50 Event Run Log	Standard
Future Set Capable Exerciser	Standard
Incorrect Wiring Protection	Standard
Internal Fault Protection	Standard
Common External Fault Capability	Standard
Governor Failure Protection	Standard

***Single and three phase connections may vary , refer to the owner's manual for specific connection information.**



WEIGHT DATA				
ENGINE/KW	ENCLOSURE MATERIAL	WEIGHT (GENSET ONLY) KG (LBS)	WEIGHT (WOODEN SHIPPING CRATE MOUNTED) KG (LBS)	SHIPPING WEIGHT (SKID MOUNTED) KG (LBS)
6.8L 100KW	STEEL	1827 (2705)	79 (175)	1305 (2880)
	ALUMINUM	1148 (2531)	79 (175)	1227 (2706)
6.8L 130KW	STEEL	1887 (2837)	79 (175)	1383 (3048)
	ALUMINUM	1824 (2699)	79 (175)	1304 (2874)
6.8L 150KW	STEEL	1859 (2666)	79 (175)	1289 (2841)
	ALUMINUM	1130 (2495)	79 (175)	1210 (2667)

NOTES:

1) MINIMUM RECOMENDED CONCRETE PAD SIZE: 1240(48.8") WIDE X 3230 (127.2") LONG. REFERENCE INSTALLATION GUIDE SUPPLIED WITH UNIT FOR CONCRETE PAD GUIDELINES.
2) ALLOW SUFFICIENT ROOM ON ALL SIDES OF THE GENERATOR FOR MAINTENANCE AND SERVICING. THIS UNIT MUST BE INSTALLED IN ACCRDANCE WITH CURRENT APPLICABLE NFPA 37 AND NFPA 70 STANDARDS AS WELL AS ANY OTHER FEDERAL, STATE AND LOCAL CODES FOR MINIMUM DISTANCES FROM OTHER STRUCTURES.
3) CIRCUIT BREAKER INFORMATION: SEE SPECIFICATION SHEET WITHIN OWNERS MANUAL.
4) INSIDE STUB-UP AREA FOR AC LOAD LEAD CONDUIT CONNECTION, NEUTRAL CONNECTION, BATTERY CHARGER 120 VOLT AC (.5 AMP MAX.) CONNECTION, AND ACCESS TO TRANSFER SWITCH CONTROL WIRES. REMOVE FRONT COVER FOR ACCESS.
4A) FIELD CUT HOLE IS ONLY REQUIRED FOR MOUNTING OF GENERATOR ON AN EXISTING PAD.
5) REFERENCE OWNERS MANUAL FOR LIFTING WARNINGS.
6) REMOVE EITHER LEFT OR RIGHT HAND SIDE PANEL TO ACCESS EXHAUST MUFFLERS AND FAN BELT.

SERVICE ITEM ACCESSIBILITY CHART

SERVICE ITEM	ACCESS		
	100KW 6.8L	130KW 6.8L	150KW 6.8L
OIL FILL CAP	THRU RIGHT FRONT DOOR		
OIL DIP STICK	THRU LEFT FRONT DOOR		
OIL FILTER	THRU LEFT FRONT DOOR		
OIL DRAIN HOSE	THRU RIGHT FRONT DOOR		
RADIATOR DRAIN HOSE	THRU LEFT FRONT DOOR		
AIR CLEANER ELEMENT	EITHER FRONT DOORS		
SPARK PLUGS	BOTH FRONT DOORS		
MUFFLERS	SEE NOTE 6		
FAN BELT	SEE NOTE 6		
BATTERY	THRU RIGHT REAR DOOR		
*GEARBOX FILL & DRAIN	THRU RIGHT REAR DOOR		

*NOTE: EXCLUDING 6.8L 150KW UNITS REFERENCE OWNERS MANUAL FOR PERIODIC REPLACEMENT PART LISTINGS