

Standby Power Rating

70 kW 60 Hz

Liquid Cooled Gas Engine Generator Sets



WhisperTest™
Low Speed Exercise
60 dB(A) at 23 feet

GENERAC 6.8L ENGINE

Naturally Aspirated
Gaseous Fueled

UL 2200 Listed

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 voltage regulator
- Dynamic and static battery charger
- Sound attenuated acoustically designed enclosure
- Whisper-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
- 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
- Built-in kW, kVAR and power factor meters

GUARDIAN[®] Elite
by Generac Power Systems, Inc.

COMMERCIAL SERIES

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)	70 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) | • Current (all phases) |
| • Power factor | • kW |
| • kVAR | • Transfer switch status |
| • Engine speed | • Low fuel pressure |
| • Run hours | • Service reminders |
| • Fault history | • Oil pressure |
| • Coolant temperature | • Time and date |
| • Low oil pressure shutdown | • High coolant temperature shutdown |
| • Overvoltage | • Overspeed |
| • Low coolant level | • Low coolant level |
| • Not in auto position (flashing light) | • Exercise speed |
| • ATS selection | |

☐ 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
- 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	2030
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	11" - 14" H ₂ O

ELECTRICAL SYSTEM

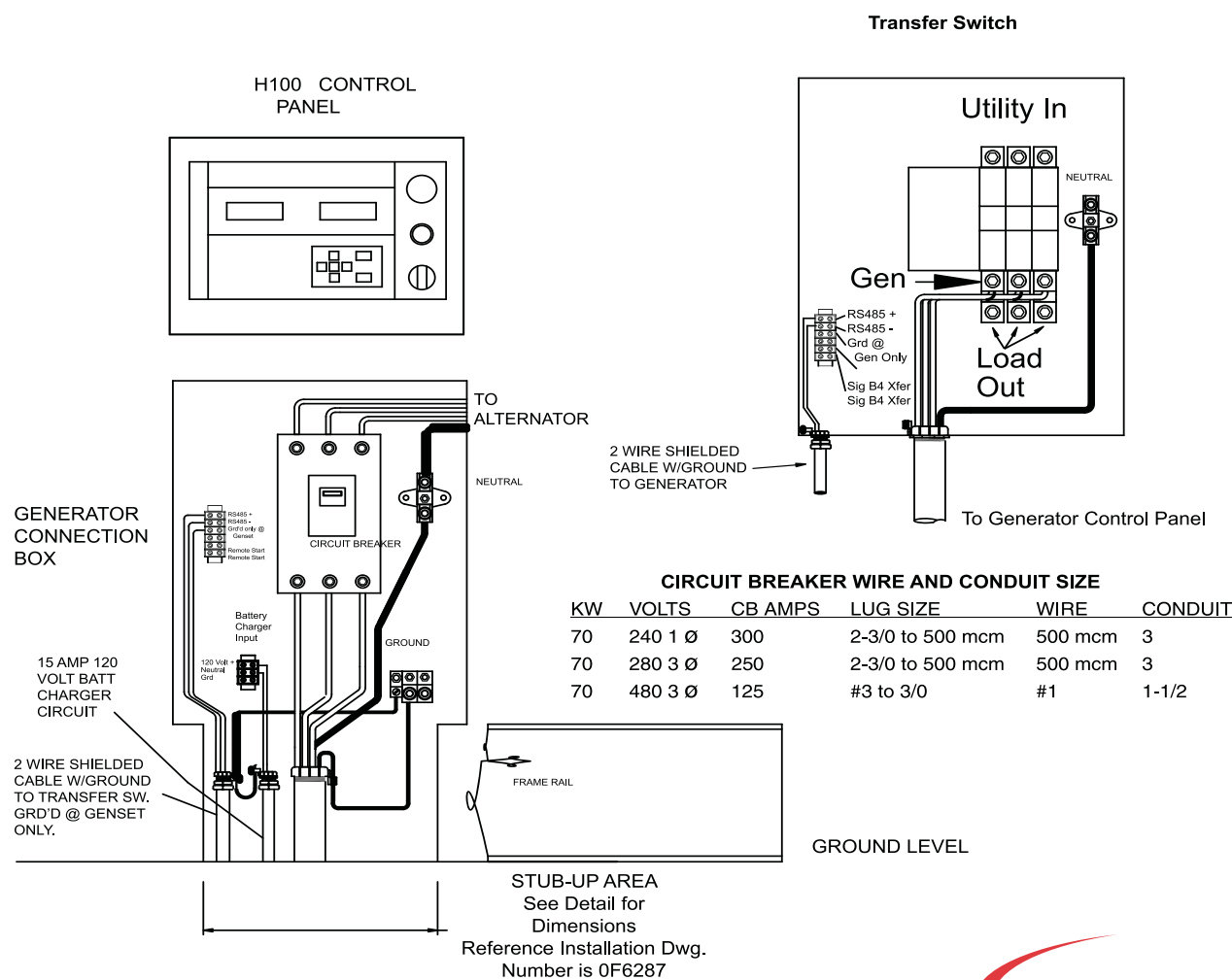
BATTERY CHARGE ALTERNATOR	12V 30 Amp
STATIC BATTERY CHARGER	12V 2 Amp
RECOMMENDED BATTERY	Group 24F, 525CCA
SYSTEM VOLTAGE	12 Volts

70 kW

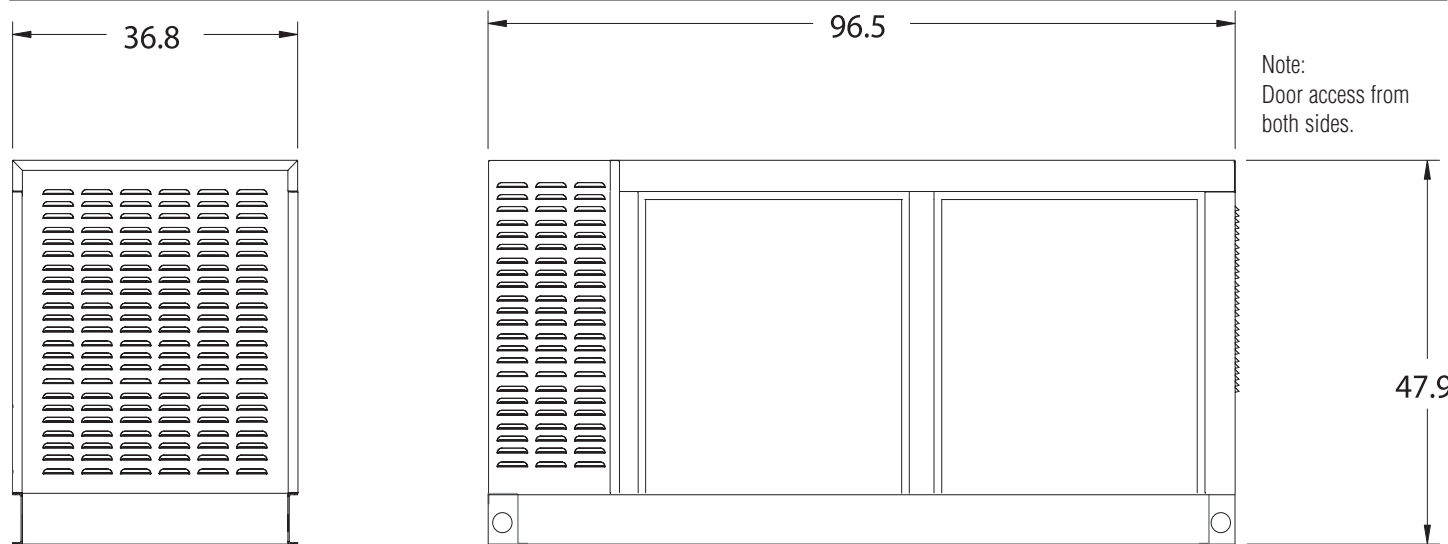
OPERATING DATA

OPERATING DATA		COMMERCIAL 70 kW		
KW RATING		70		
ENGINE SIZE		6.8 Liter V-10		
GENERATOR OUTPUT VOLTAGE/KW - 60 Hz		KW	AMP	CB Size
120/240V, 1-phase, 1.0 pf		70	292	300
120/208V, 3-phase, 0.8 pf		70	243	250
277/480V, 3-phase, 0.8 pf		70	105	125
GENERATOR LOCKED ROTOR KVA				
AVAILABLE @ VOLTAGE DIP OF 35%				
Single phase or 208 3-phase		145		
480V 3-phase		160		
ENGINE FUEL CONSUMPTION (Natural Gas) (Propane)		Natural Gas	Propane	
		(ft ³ /hr.)	(gal/hr.)	cu ft/hr
Exercise cycle		110	1.20	44.2
25% of rated load		260	2.85	104.9
50% of rated load		499	5.46	200.9
75% of rated load		696	7.62	280.4
100% of rated load		1020	11.17	411
ENGINE COOLING				
Air flow (inlet air including alternator and combustion air)	ft ³ /min.	5200		
System coolant capacity	US gal.	4.5		
Heat rejection to coolant	BTU/hr.	287,000		
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	205		
SOUND EMISSIONS IN DBA				
Exercising at 7 meters		60		
Full load at 7 meters		73		
EXHAUST				
Exhaust flow at rated output 60 Hz	cfm	557		
Exhaust temp. at muffler outlet	°F	890		
ENGINE PARAMETERS				
Rated synchronous RPM	60 Hz	1800		
HP at rated KW	60 Hz	110.7		
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. Maximum wattage and current are subject to and limited by such factors as fuel Btu content, ambient temperature, altitude, engine power and condition, etc.



INSTALLATION LAYOUT



UNIT WEIGHT: Steel 2185 lbs., Aluminum 2040 lbs.