

Standby Power Rating

50 kW 60 Hz

Liquid Cooled Gas Engine Generator Sets



**Quiet-Test Mode
For Low Noise Exercise
- 61 dB(A) at 23 feet**

GENERAC 3.0L 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
- Overspeed automatic shutdown
- Crank timer
- 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
- 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
- R100 digital control panel
- State of the art digital control system
- 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



APPLICATION & ENGINEERING DATA

50 kW

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)	50 kW
EXCITATION SYSTEM	Direct

NOTE: Generator rating and performance in accordance with ISO8528-5, BS5514, SAE J1349, ISO3046, and DIN6271 standards.

VOLTAGE REGULATOR

TYPE	Electronic
SENSING	Single Phase
REGULATION	± 1%
FEATURES	V/F Adjustable Adjustable Voltage and Gain LED Indicators

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 models are fully prototyped tested

CONTROL PANEL FEATURES

- SIX LED INDICATOR LIGHTS:
 - Overcrank shutdown
 - Low coolant level shutdown
 - Low oil pressure shutdown
 - System ready for operation
 - Exerciser not set (in auto mode only)
 - Delay on utility failure for engine start
 - Delay to retransfer to utility
 - Engine cooldown timer
 - Overspeed shutdown
 - High coolant temperature shutdown
 - Low battery voltage
 - No utility sensing
 - Low fuel pressure
 - Engine warmup before transfer
 - Delay to retransfer to utility
- INTERNAL FUNCTIONS:
 - 3 position switch (auto, off and manual)
 - 2 wire start for any transfer switch
 - Communicates with the Generac RTS transfer switch
 - Built-in 7 day exerciser
 - Selectable engine speed at exercise
 - Governor controller is built into the master control board
 - Temperature range -40 °C to 70 °C

ENGINE SPECIFICATIONS

MAKE	Generac
MODEL	V Type
CYLINDERS	6
DISPLACEMENT	3.0 Liter
BORE	3.55
STROKE	3.1
COMPRESSION RATIO	9.3:1
INTAKE AIR SYSTEM	Naturally Aspirated
VALVE SEATS	Hardened
LIFTER TYPE	Hydraulic

GOVERNOR SPECIFICATIONS

TYPE	Electronic
FREQUENCY REGULATION	± 1%
STEADY STATE REGULATION	± 1/2%
ADJUSTMENTS	
Speed	Yes
Droop	Yes

ENGINE LUBRICATION SYSTEM

OIL PUMP	Gear
OIL FILTER	Full flow cartridge
CRANKCASE CAPACITY	4 Quarts

ENGINE COOLING SYSTEM

TYPE	Closed
WATER PUMP	Belt driven
FAN SPEED	1900
FAN DIAMETER	22 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 PRESSURE5" - 14" H ₂ O

ELECTRICAL SYSTEM

BATTERY CHARGE ALTERNATOR	12V 30 Amp
STATIC BATTERY CHARGER2 Amp
RECOMMENDED BATTERY	24F 625CCA
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 and DIN6271).

50 kW

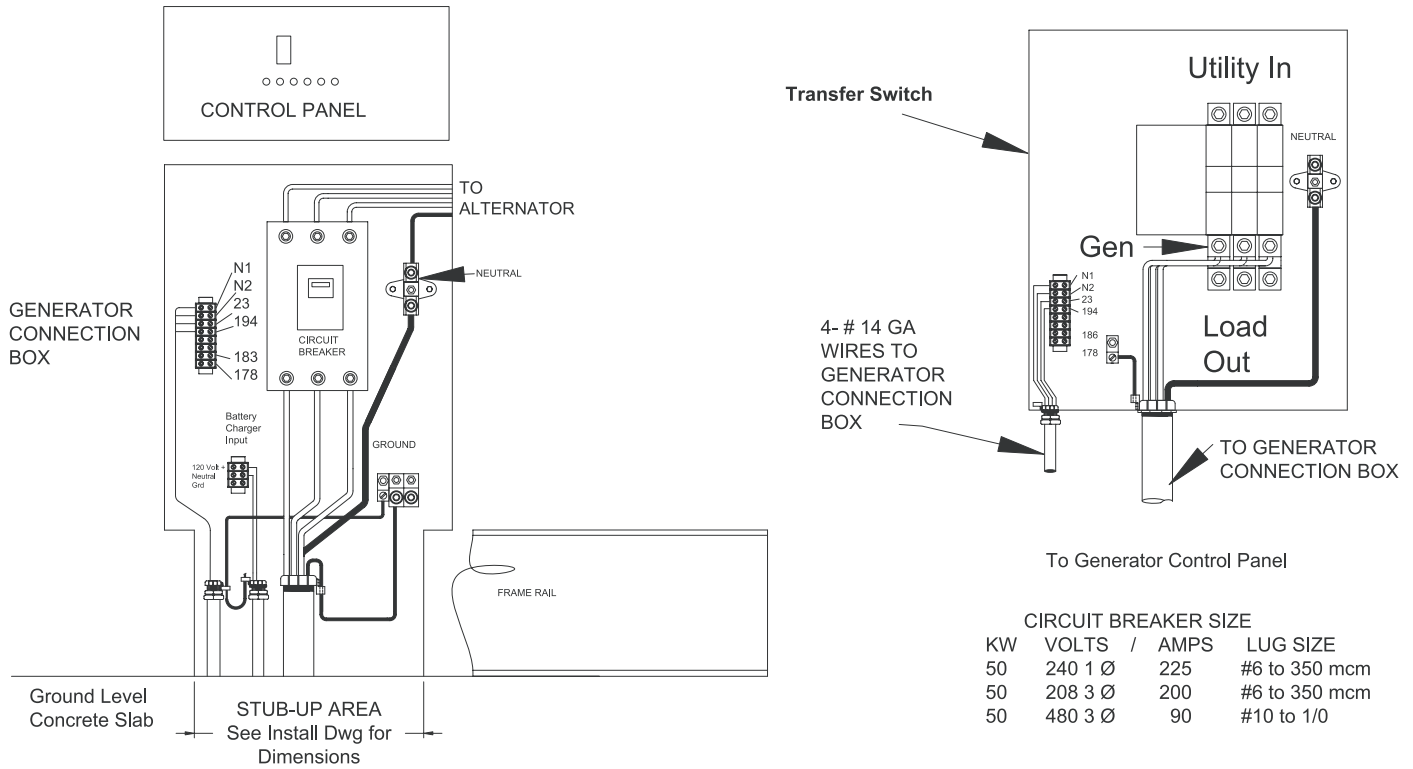
OPERATING DATA

		COMMERCIAL 50 kW		
KW RATING		50		
ENGINE SIZE		3.0 Liter V-6		
GENERATOR OUTPUT VOLTAGE/KW - 60Hz		KW	AMP	CB Size
120/240V, 1-phase, 1.0 pf		50	208	225
120/208V, 3-phase, 3.0 pf		50	173	200
277/480V, 3-phase, 3.0 pf		50	75	90
GENERATOR LOCKED ROTOR KVA AVAILABLE @ VOLTAGE DIP OF 35%				
Single phase or 208 3-phase		92		
480V 3-phase		105		
ENGINE FUEL CONSUMPTION (Natural Gas)				
Exercise cycle	ft ³ /hr.	116		
25% of rated load	ft ³ /hr.	185		
50% of rated load	ft ³ /hr.	357		
75% of rated load	ft ³ /hr.	497		
100% of rated load	ft ³ /hr.	687		
ENGINE COOLING				
Air flow (inlet air including alternator and combustion air)	ft ³ /min.	3250		
Coolant capacity	US gal.	2.5		
Heat rejection to coolant	BTU/hr.	190,000		
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	190		
SOUND EMISSIONS IN DBA				
Exercising at 7 meters		61		
Full load at 7 meters		75		
EXHAUST				
Exhaust flow at rated output 60 Hz	cfm	570		
Exhaust temp. at muffler outlet	°F	925		
ENGINE PARAMETERS				
Rated synchronous RPM	60 Hz	3600		
HP at rated KW	60 Hz	78		
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		182		
3% for every 1000 ft. above - ft.		600		

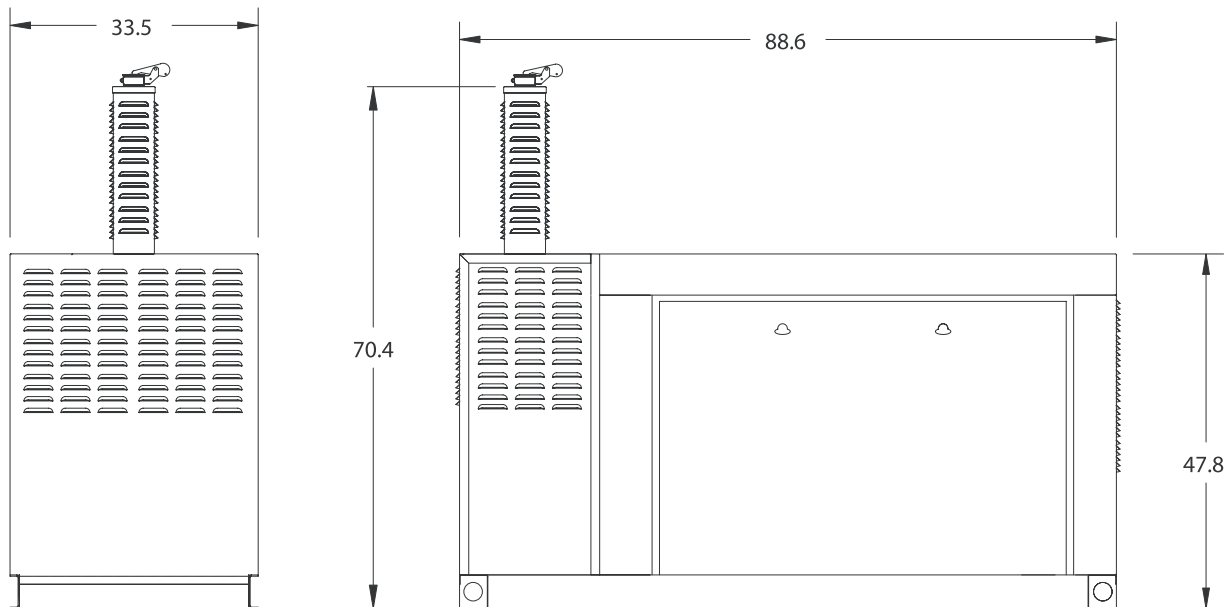
RATING: All three phases units are rated at 0.8 power factor. All single phase units are rated at 1.0 power factor. STANDBY RATING: Standby ratings apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. There is 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.

INTERCONNECTIONS

50 kW



INSTALLATION LAYOUT



UNIT WEIGHT 1590 LBS.

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