

Standby Power Rating

40 kW 60 Hz

Liquid Cooled
Gas Engine
Generator Sets

Model Numbers:

**05221
05221T**



Ultra Quiet Mode
For Low Noise Exercise
- 60 dB(A) at 23 feet

GENERAC 3.9L ENGINE

Naturally Aspirated
Gaseous Fueled

UL 2200 Listed



Model 5221T is equipped with a
200 amp NEMA 3R Transfer Switch
with Service Disconnect.
Transfer Switch available for Model 5221.

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 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
- Ultra Quiet Mode 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



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)	40 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

- | | |
|--|---|
| <input type="checkbox"/> SEVEN LED INDICATOR LIGHTS | <input type="checkbox"/> ADDITIONAL FUNCTIONS |
| <ul style="list-style-type: none">• System ready• Low fuel pressure• Low battery• Low oil pressure• High coolant temp/low coolant temp• Overspeed• Overcrank | <ul style="list-style-type: none">• Utility sensing• Delay on utility failure for engine start• Engine warm-up before transfer• Delay to retransfer to utility• Engine cooldown timer• Exerciser not set |
- 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	3.9 Liter
BORE	3.91
STROKE	3.31
COMPRESSION RATIO	9.1:1
INTAKE AIR SYSTEM.....	Naturally Aspirated
VALVE SEATS	Precision ground
LIFTER TYPE	Hydraulic

GOVERNOR SPECIFICATIONS

TYPE	Electronic
FREQUENCY REGULATION	Isochronous
STEADY STATE REGULATION	± .25%
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.....	2190
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 VAPOR SYSTEMS	Nat. Gas 5" to 14" H ₂ OLP Vapor 5" to 14" H ₂ O

ELECTRICAL SYSTEM

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

STANDBY 40 kW

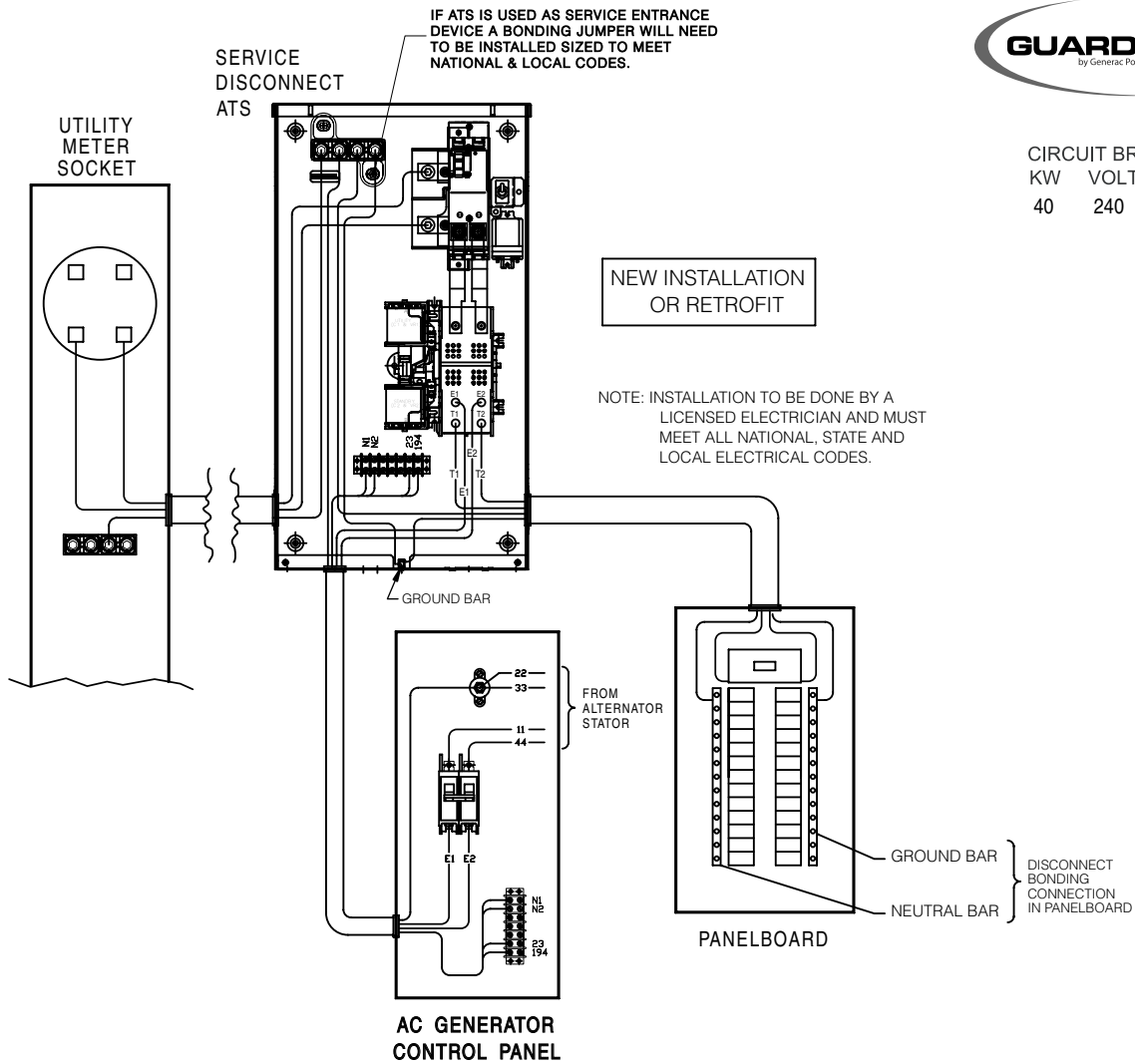
OPERATING DATA

		STANDBY 40 kW				
KW RATING - LP/NG		40/37				
ENGINE SIZE		3.9 Liter V-6				
GENERATOR OUTPUT VOLTAGE/KW - 60Hz 120/240V, 1-phase, 1.0 pf		KW LP 40 / NG 37	AMP LP 167 / NG 154.2	CB Size 175		
GENERATOR LOCKED ROTOR KVA AVAILABLE @ VOLTAGE DIP OF 35% Single phase		80				
FUEL – Natural Gas and LP Vapor Only Fuel consumption – 60Hz		<u>Exercise Cycle</u>	<u>25% Load</u>	<u>50% Load</u>	<u>75% Load</u>	<u>100% Load</u>
	N.G.ft.³/hr	82	148	285	397	550
	LP ft³ /hr.(gal./hr - for reference only)	33.1 (.90)	58.9 (1.62)	113.4 (3.12)	158 (4.34)	218.9 (6.01)
ENGINE COOLING						
Air flow (inlet air including alternator and combustion air)	ft ³ /min.	2725				
Coolant capacity	US gal.	3.0				
Heat rejection to coolant	BTU/hr.	154,000				
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	122				
SOUND EMISSIONS IN DBA						
Exercising at 7 meters		60				
Full load at 7 meters		73				
EXHAUST						
Exhaust flow at rated output 60 Hz	cfm	318				
Exhaust temp. at muffler outlet	°F	938				
ENGINE PARAMETERS						
Rated synchronous RPM	60 Hz	1800				
HP at rated KW	60 Hz	61				
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				
TRANSFER SWITCH SPECIFICATIONS (If so equipped)						
No. of Poles		2				
Current Rating	(amps)	200				
Voltage Rating	(VAC)	250				
Service Disconnect Breaker		200 Amp HACR Type				
Utility Voltage Monitor	(fixed)					
	Pick-up	80%				
	Dropout	60%				
Return to Utility		1 minute				
Exerciser 15 minutes weekly		Standard				
UL Listed		Standard				
Enclosure - NEMA 3R (Outdoor rated)		Standard				
Dimensions	(H" x W" x D")	23.5 x 13.05 x 7.4				
Weight		50 lbs.				

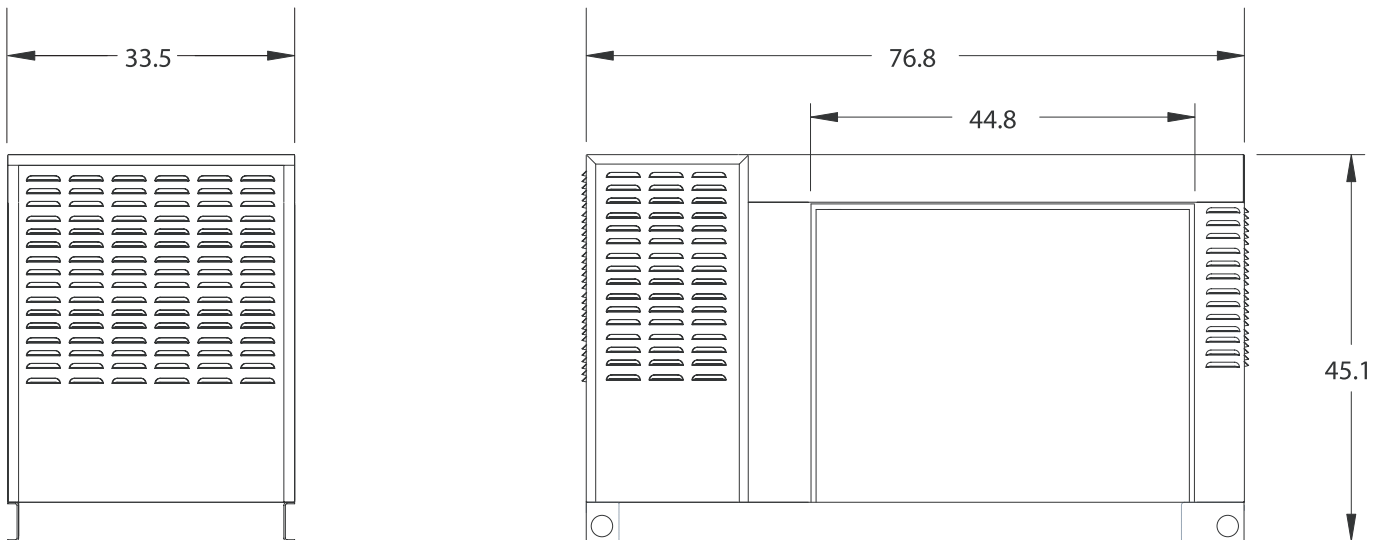
Rating definitions - Standby: Applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. (All ratings in accordance with BS5514, ISO3046 and DIN6271). (All ratings in accordance with BS5514, ISO3046, ISO8528 and DIN6271).

INTERCONNECTIONS

STANDBY 40 kW



INSTALLATION LAYOUT



UNIT WEIGHT 1658 LBS.

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