

Standby Power Rating

20 kW 60 Hz

**Liquid Cooled
Gas Engine
Generator Sets**

Model Numbers:

05210

05210T



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

UL 2200 Listed

Power Matched

GENERAC MMC 4G15 ENGINE

Naturally Aspirated

2 Year Limited Warranty

**Model 5210T is equipped with a
100 amp NEMA 3R Transfer Switch.
Transfer Switch available for Model 5210**

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
- State of the art R100 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



GENERATOR SPECIFICATIONS

TYPE Standby 20	Two-pole, revolving field
ROTOR INSULATION	Class F
STATOR INSULATION	Class F
VOLTAGE WAVE FORM DEVIATION	<5%
TOTAL HARMONIC DISTORTION (line to line)	<5%
TELEPHONE INTERFERENCE FACTOR (TIF)	<50
ALTERNATOR	Self-ventilated and drip-proof
BEARINGS (PRE-LUBED & SEALED)	1
COUPLING	Direct, Flexible Disc
LOAD CAPACITY (STANDBY)	20 kW

NOTE: Emergency loading in compliance with NFPA 99, NFPA 110, paragraph 5-13.2.6. 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

- | | |
|---|---|
| <ul style="list-style-type: none"> <input type="checkbox"/> SEVEN LED INDICATOR LIGHTS <ul style="list-style-type: none"> • System ready • Low fuel pressure • Low battery voltage • Low oil pressure • High coolant temp/low coolant temp • Overspeed • Overcrank <input type="checkbox"/> INTERNAL FUNCTIONS <ul style="list-style-type: none"> • 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 | <ul style="list-style-type: none"> <input type="checkbox"/> ADDITIONAL FUNCTIONS <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 |
|---|---|

ENGINE SPECIFICATIONS

MAKE	GENERAC
MODEL	MMC 4G15
CYLINDERS	4 in-line
DISPLACEMENT	1.5 Liter (91.5 cu. in.)
BORE	75.5 mm (2.97 in.)
STROKE	82 mm (3.23 in.)
COMPRESSION RATIO	9:4:1
INTAKE AIR	Naturally Aspirated
NUMBER OF MAIN BEARINGS	5
CONNECTING RODS	4-Drop forged steel
CYLINDER HEAD	S.O.H.C.
PISTONS	4-Aluminum Alloy
CRANKSHAFT	Drop Forged Steel

VALVE TRAIN

LIFTER TYPE	Overhead Cam Rocker Arm /Hydraulic Lifter
INTAKE VALVE MATERIAL	High Temperature Alloy Forged
EXHAUST VALVE MATERIAL	High Temperature Alloy Forged
VALVE SEATS	Precision Ground

ENGINE GOVERNOR

- ELECTRONIC..... Standard
- FREQUENCY REGULATION, NO-LOAD TO FULL LOADIsochronous
- STEADY STATE REGULATION

LUBRICATION SYSTEM

TYPE OF OIL PUMP	Gear
OIL FILTER	Full flow, spin-on cartridge
CRANKCASE CAPACITY	3.8 Liters (4 qts.)

COOLING SYSTEM

TYPE OF SYSTEM	Pressurized, closed recovery
WATER PUMP	Belt driven
TYPE OF FAN	Pusher
NUMBER OF FAN BLADES	6
DIAMETER OF FAN	380 mm (15.0 in.)

FUEL SYSTEM

FUEL	
<input type="checkbox"/> Natural Gas or L.P. Vapor	Standard
CARBURETOR	Down draft
SECONDARY FUEL REGULATOR. Nat. Gas or L.P. Vapor Systems	
AUTOMATIC FUEL LOCKOFF SOLENOID	Standard
OPERATING FUEL PRESSURE VAPOR SYSTEMS ..Nat. Gas 5 to 14" H ₂ O	
LP Vapor 5 to 14" H ₂ O	

ELECTRICAL SYSTEM

BATTERY CHARGE ALTERNATOR	30 Amps at 12 V
STARTER MOTOR	12 V
RECOMMENDED BATTERY.....	12 V, 525 CCA @ 0° F/75 A.H., Group 26
GROUND POLARITY	Negative

STANDBY 20kW

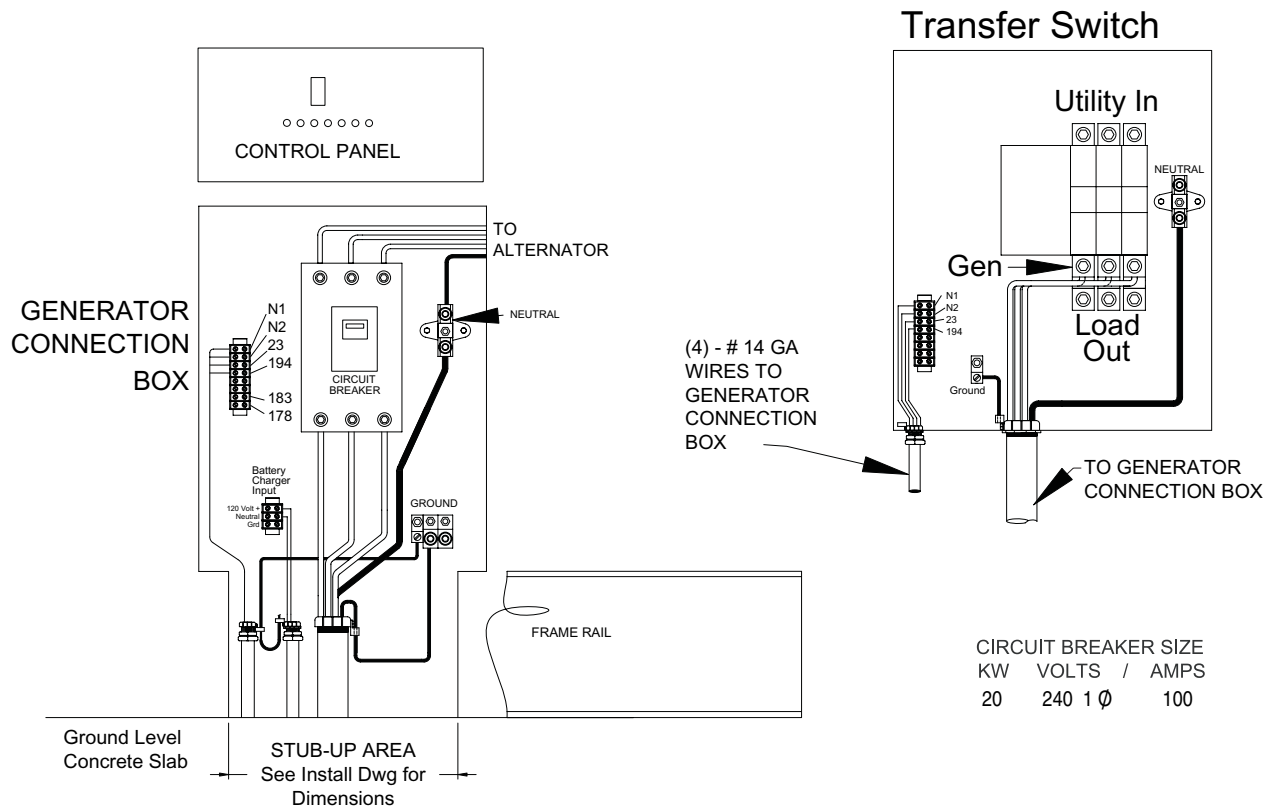
OPERATING DATA

		STANDBY 20 kW				
GENERATOR OUTPUT VOLTAGE/KW - 60Hz		NG/LP	Rated AMP	CB Size		
120/240V, 1-phase, 1.0 pf		20	83.3	100		
MOTORSTARTING Maximum at 35% instantaneous voltage dip with standard alternator; 60 Hz			34			
FUEL – Natural Gas and LP Vapor Only Fuel consumption – 60 Hz		<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.		52	198	276	336	390
LP ft. /hr.(gal./hr- for reference only)		21 (.58)	79 (2.17)	110 (3.0)	134 (3.68)	155 (4.26)
COOLING						
Coolant capacity	System lit.(US gal.)	7.5 (2.0)				
Engine lit.(US gal.)		0.9 (0.25)				
Radiator lit.(US gal.)		6.6 (1.75)				
Coolant flow/min.	60 Hz lit.(US gal.)	40.0 (10.6)				
Heat rejection to coolant	60 Hz BTU/hr.	110,000				
Cooling air flow	60 Hz m ³ /min. (cfm)	43 (1528)				
COMBUSTION AIR REQUIREMENTS						
Flow at rated power 60 Hz	m ³ /min. (cfm)	2.0 (70)				
EXHAUST						
Exhaust flow at rated output 60 Hz	m ³ /min. (cfm)	5.0 (177)				
Max. recommended back pressure	Kpa (Hg)	5.0 (1.5")				
Exhaust temp. at rated output	°C (°F)	488 (910)				
Exhaust outlet size	N.P.T. (female)	1.5"				
ENGINE						
Rated at RPM	60 Hz	3600				
HP at rated KW	60 Hz	34.8				
Piston speed	60 Hz m/min. (ft./min.)	590 (1937)				
BMEP (PSI)	60 Hz	78				
POWER ADJUSTMENT FOR AMBIENT CONDITIONS						
Temperature	-1.65% for every 10°F above - °F	77				
Altitude	-3% for every 1000 ft. above - ft.	600				
SOUND OUTPUT						
In dB(A) at 23 feet with generator operating at full load		75.7				
In dB(A) at 23 feet with generator operating at exercise		62.2				

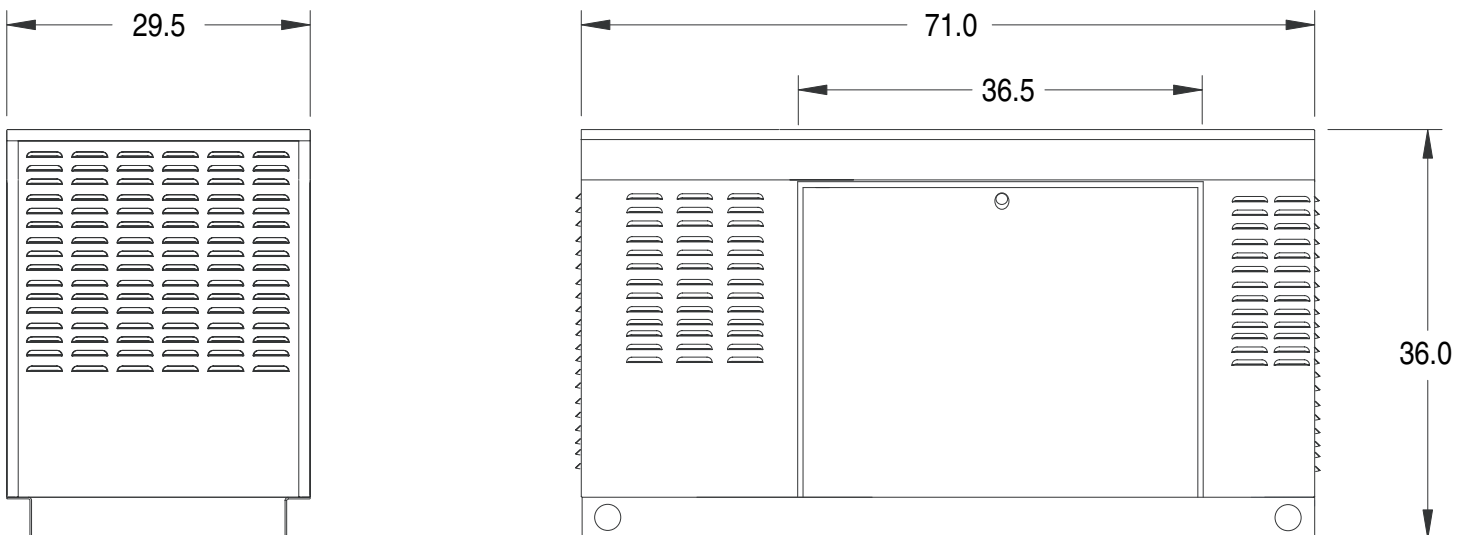
TRANSFER SWITCH SPECIFICATIONS (If so equipped)		
No. of Poles		2
Current Rating	(amps)	100
Voltage Rating	(VAC)	250
Utility Voltage Monitor	(fixed)	
	Pick-up	80%
Enclosure - NEMA 3R		Standard
Dropout		60%
Return to Utility		1 minute
Exerciser 15 minutes weekly		Standard
UL Listed		Standard
Dimensions	(H" x W" x D")	20 x 15 x 7
Weight		35 lbs.

INTERCONNECTIONS

STANDBY 20 kW



INSTALLATION LAYOUT



UNIT WEIGHT 776 LBS.