

Home Standby - 45

Liquid Cooled Gas Engine Generator Sets

Continuous Standby Power Rating
45kW 60 Hz LPV
40kW 60 Hz NG

Prime Power Rating
36kW 60 Hz LPV
33kW 60 Hz NG
Model #04373



Power Matched
GENERAC MMC 4.3GN ENGINE
Naturally Aspirated

GENERAC® 200 Amp
Automatic Transfer Switch

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**
 - ✓ **ELECTRO-MAGNETIC INTERFERENCE**
 - ✓ **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.
- SINGLE SOURCE SERVICE RESPONSE** from Generac's dealer network provides parts and service know-how for the entire unit, from the engine to the smallest electronic component. You are never on your own when you own a GENERAC POWER SYSTEM.
- 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.



GENERATOR SPECIFICATIONS

TYPE	Four-pole, revolving field
ROTOR INSULATION	Class H
STATOR INSULATION	Class H
TOTAL HARMONIC DISTORTION (line to line)	<3%
TELEPHONE INTERFERENCE FACTOR (TIF)	<50
ALTERNATOR	Self-ventilated and drip-proof
BEARINGS (PRE-LUBED & SEALED)	1
COUPLING	Direct, Flexible Disc
LOAD CAPACITY (STANDBY)	100%
LOAD CAPACITY (PRIME)	110%

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.

EXCITATION SYSTEM

DIRECT	DC excitation system ✓
	Low-velocity brushes and slip rings ✓
REGULATION	Solid-state ✓
	±1% regulation ✓

GENERATOR FEATURES

- Four pole, revolving field generator, directly connected to the engine shaft through a heavy-duty, flexible disc for permanent alignment.
- Generator meets temperature rise standards for class "F" insulation as defined by NEMA MG1-22.4 and NEMA MG 1-1.65.
- Rotor and stator and other insulation is impregnated twice with class "H" varnish.
- Unit tested for motor starting ability by measuring instantaneous voltage dip with an oscillograph.
- All models utilize an advanced wire harness design for reliable interconnection within the circuitry.
- Magnetic circuit, including amortisseur windings, tooth and skewed stator design, provides a minimal level of waveform distortion and an electromagnetic interference level which meets accepted requirements for standard AM radio, TV, and marine radio telephone applications.
- Voltage waveform deviation, total harmonic content of the AC waveform, and balanced T.I.F. (Telephone Influence Factor) have been evaluated to acceptable standards in accordance with NEMA MG1-22.
- Alternator is of drip-proof guarded construction.
- Fully life-tested protective systems, including "field circuit and thermal overload protection" and standard main line circuit breakers capable of handling full output capacity.
- System torsional acceptability confirmed during prototype testing.

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). Prime (Unlimited Running Time): Applicable for supplying electric power in lieu of commercially purchased power. Prime power is the maximum power available at variable load. A 10% overload capacity is available for 1 hour in 12 hours. (All ratings in accordance with BS5514, ISO3046, ISO8528 and DIN6271).

ENGINE SPECIFICATIONS

MAKE	GENERAC
MODEL	4.3GN
CYLINDERS	V-6
DISPLACEMENT	4.3 Liter (262 cu. in.)
BORE	101.6 mm (4.00 in.)
STROKE	88 mm (3.48 in.)
COMPRESSION RATIO	9.4:1
INTAKE AIR	Naturally Aspirated
NUMBER OF MAIN BEARINGS	4
CONNECTING RODS	6-Drop forged steel
CYLINDER HEAD	Cast Iron
PISTONS	6-Notched Head, Aluminum Alloy
CRANKSHAFT	Nodular Steel

VALVE TRAIN

LIFTER TYPE	Hydraulic Roller
INTAKE VALVE MATERIAL	Aluminized Steel Faced
EXHAUST VALVE MATERIAL	Stellite Faced
HARDENED VALVE SEATS	No

ENGINE GOVERNOR

<input type="checkbox"/> ELECTRONIC.....	Standard
FREQUENCY REGULATION, NO-LOAD TO FULL LOAD	0.5%
STEADY STATE REGULATION	±0.25%

LUBRICATION SYSTEM

TYPE OF OIL PUMP	Gerotor
OIL FILTER	Full flow, cartridge
CRANKCASE CAPACITY	4.25 Liters (4.5 qts.)

COOLING SYSTEM

TYPE OF SYSTEM	Pressurized, closed recovery
WATER PUMP	Pre-lubed, self-sealing
TYPE OF FAN	Pusher
NUMBER OF FAN BLADES	7
DIAMETER OF FAN	380 mm (15 in.)
COOLANT HEATER	120V, 1800 W

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	11" to 14" H ₂ O

ELECTRICAL SYSTEM

BATTERY CHARGE ALTERNATOR	22 Amps at 12 V
STARTER MOTOR	12 V
RECOMMENDED BATTERY	(1) - 12 V, 90 A.H., 27F
GROUND POLARITY	Negative

OPERATING DATA

	STANDBY				PRIME			
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GENERATOR OUTPUT VOLTAGE/KW - 60Hz 120/240V, 1-phase, 1.0 pf	LP	NG	Amps LP	NG	LP	NG	Amps LP	NG
		45	40	375/188	333/166	36	33	300/150
MOTOR STARTING KVA Maximum at 35% instantaneous voltage dip Main Line Circuit Breaker	90	80			90	80		
	200 Amp				200 Amp			
FUEL Fuel consumption - 60 Hz--100% Load	LP		NG		LP		NG	
ft. ³ /hr.(gal./hr)	310 (7.2)		735		251(6.4)		683	
m ³ /hr.	8.8		20.8		7.1		19.3	
COOLING								
Coolant capacity System lit.(US gal.)			17 (4.5)				17 (4.5)	
Coolant flow/min. 60 Hz lit.(US gal.)			90 (24)				90 (24)	
Heat rejection to coolant BTU/hr.			235,000				200,000	
Inlet air 60 Hz m ³ /min. (cfm)			68 (2400)				68 (2400)	
Max. inlet air temperature °F			110				110	
COMBUSTION AIR REQUIREMENTS								
Flow at rated power 60 Hz m ³ /min. (cfm)			3.3 (116)				3.3 (116)	
EXHAUST								
Exhaust flow at rated output 60 Hz m ³ /min. (cfm)			10.0 (353)				10.0 (353)	
Max. recommended back pressure Kpa (Hg)			5.0 (1.5")				5.0 (1.5")	
Exhaust temp. at rated output °C (°F)			650 (1200)				593 (1100)	
Exhaust outlet size N.P.T. (female)			2.5" - (2)				2.5" - (2)	
ENGINE								
Rated at RPM 60 Hz			1800				1800	
HP at rated KW 60 Hz			80				64	
Piston speed 60 Hz m/min. (ft./min.)			318 (1044)				318 (1044)	
BMEP 60 Hz			119				80	
POWER ADJUSTMENT FOR AMBIENT CONDITIONS								
Temperature								
5% for every 10°C above - °C			43				43	
2.77% for every 10°F above - °F			110				110	
Altitude								
1.1% for every 100 m above - m			1067				1067	
3.5% for every 1000 ft. above - ft.			3500				3500	
TRANSFER SWITCH SPECIFICATIONS								
No. of Poles					2			
Current Rating (amps)					200			
Voltage Rating (VAC)					250			
Utility Voltage Monitor (fixed)								
Pick-up 80%								
Dropout 60%								
Return to Utility					1 minute			
Exerciser 7 minute weekly					Standard			
UL Listed					Standard			
Enclosure - NEMA 3R (Outdoor rated)					Standard			
Dimensions (H" x W" x D")					24 x 20.5 x 7.5			
Weight					50 lbs.			

STANDARD ENGINE & SAFETY FEATURES

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- High Coolant Temperature Automatic Shutdown
- Low Coolant Level Automatic Shutdown
- Low Oil Pressure Automatic Shutdown
- Overspeed Automatic Shutdown (Solid-state)
- Crank Limiter (Solid-state)
- Oil Drain Extension
- Radiator Drain Extension
- Factory-Installed Cool Flow Radiator
- Closed Coolant Recovery System
- UV/Ozone Resistant Hoses
- Rubber-Booted Engine Electrical Connections
- Fuel Lockoff Solenoid
- Isochronous Governor
- Secondary Fuel Regulator (N.G. and L.P.)
- Automatic Transfer Switch
- Battery Charge Alternator
- Battery Cables
- Battery Tray
- Vibration Isolation of Unit to Mounting Base
- 12 Volt, Solenoid-Activated Starter Motor
- Air Cleaner
- Fan Guard
- Control Console
- Stainless Steel Flexible Exhaust Connection
- Engine Block Heater
- Flexible Fuel Lines
- Critical Exhaust Silencer
- Battery Trickle Charger
- Main Line Circuit Breaker
- Weather Protective Enclosure (Locking Type)

Home Standby Control Features:

Home Standby Control Console

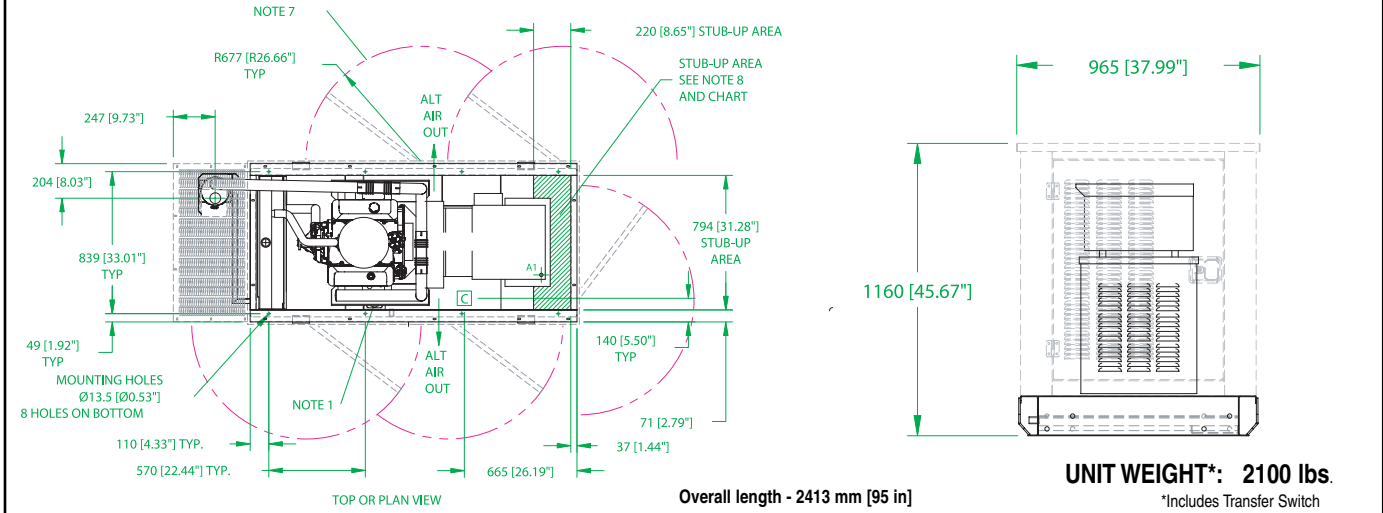
- Manual/Auto/Off switch
- Hour meter
- DC volt meter
- AC frequency meter
- AC ammeter
- AC volt meter
- Meter selector switch
- Fault indicator lamp
- Fuse (panel overload)
- Set exercise time switch

Home Standby Microprocessor Controls

- Automatic voltage regulation
- Utility voltage sensing
- Utility interrupt delay (10-second setpoint)
- Engine warm-up (10-second setpoint)
- Engine cool-down (1-minute setpoint)
- Seven-day exerciser

Distributed by:

Design and specifications subject to change without notice. Dimensions shown are approximate. Contact your Generac dealer for certified drawings. DO NOT USE THESE DIMENSIONS FOR INSTALLATION PURPOSES.



GENERAC POWER SYSTEMS, INC. • P.O. BOX 297 • WHITEWATER, WI 53190

WEBSITE: www.guardiangenerator.com