

SG010 SG015

Liquid Cooled Gas Engine Generator Sets

Continuous Standby Power Rating

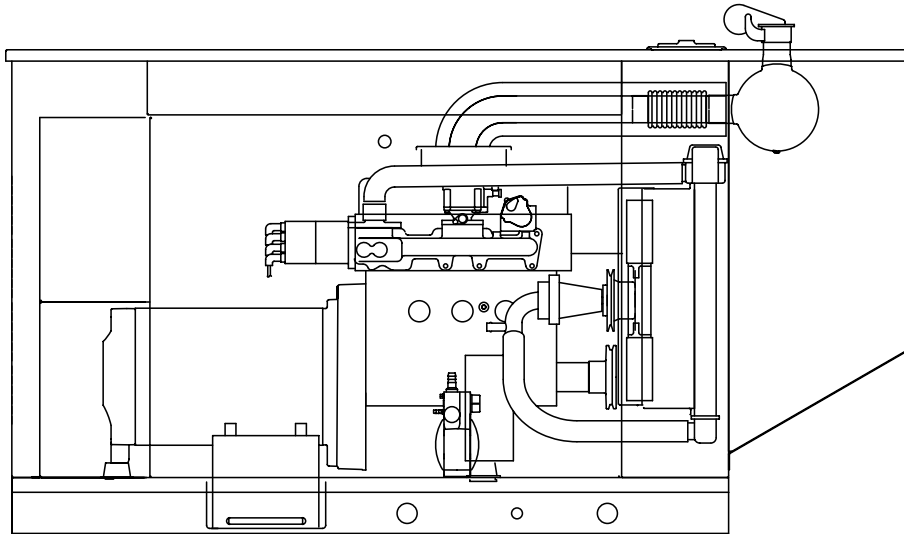
10KW 60 Hz / 10KVA 50 Hz

15KW 60 Hz / 15KVA 50 Hz

Prime Power Rating

7.25KW 60 Hz / 8KVA 50 Hz

11KW 60 Hz / 12KVA 50 Hz



Power Matched

GENERAC MMC 4G15 ENGINE

Naturally Aspirated

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
 - ✓ SHORT CIRCUIT TESTING
 - ✓ UL 2200 COMPLIANCE AVAILABLE
- **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 an GENERAC POWER SYSTEM.
- **GENERAC TRANSFER SWITCHES, SWITCHGEAR AND ACCESSORIES.** Long life and reliability is synonymous with GENERAC POWER SYSTEMS. One reason for this confidence is that the GENERAC product line includes its own transfer systems, accessories, switchgear and controls for total system compatibility.

GENERAC®

POWER SYSTEMS, INC.

GENERATOR SPECIFICATIONS

TYPE	Four-pole, revolving field
ROTOR INSULATION	Class F
STATOR INSULATION	Class F
TOTAL HARMONIC DISTORTION	<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 and NEMA MG1-1.
- Stator windings are "trickle" varnished and rotor windings are "roll-dipped" for complete Class H impregnation.
- All model designs pass a three-phase symmetrical short circuit test to assure system protection and reliability.
- Unit tested for motor-starting ability by measuring instantaneous voltage dip with a waveform data acquisition system.
- 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 mainline 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	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

- Rocker Arm Type

INTAKE VALVE MATERIAL

- High Temperature Alloy Forged

EXHAUST VALVE MATERIAL

- High Temperature Alloy Forged

VALVE SEATS

- Replaceable

ENGINE GOVERNOR

ELECTRONIC

- Standard

FREQUENCY REGULATION, NO-LOAD TO FULL LOAD ... 0.5%

STEADY STATE REGULATION

- ±0.25%

LUBRICATION SYSTEM

TYPE OF OIL PUMP

- Gear

OIL FILTER

- Full flow, cartridge

CRANKCASE CAPACITY

- 3.8 Liters (4 qts.)

COOLING SYSTEM

TYPE OF SYSTEM

- Pressurized, closed recovery

WATER PUMP

- Pre-lubed, self-sealing

TYPE OF FAN

- Pusher

NUMBER OF FAN BLADES

- 6

DIAMETER OF FAN

- 380 mm (15.0 in.)

COOLANT HEATER

- 120V, 500 W

FUEL SYSTEM

FUEL

Natural Gas or L.P. Vapor

- Standard

L.P. Liquid Withdrawal

- Optional

CARBURETOR

- Down draft

SECONDARY FUEL REGULATOR Nat. Gas or L.P. Vapor Systems

HOT WATER VAPORIZER

- L.P. Liquid Withdrawal Systems

AUTOMATIC FUEL LOCKOFF SOLENOID

- Standard

OPERATING FUEL PRESSURE VAPOR SYSTEMS 7" to 15" H₂O

ELECTRICAL SYSTEM

BATTERY CHARGE ALTERNATOR

- 15 Amps at 12 V

STARTER MOTOR

- 12 V

RECOMMENDED BATTERY

- (1) - 12 V, 75 A.H., 26F

GROUND POLARITY

- Negative

SG010/SG015

OPERATING DATA

	STANDBY				PRIME			
	SG010		SG015		SG010		SG015	
GENERATOR OUTPUT VOLTAGE/KW-60Hz	NG/LP	RatedAMP	NG/LP	RatedAMP	NG/LP	RatedAMP	NG/LP	RatedAMP
120/240V, 1-phase, 1.0 pf	10	41.7	15	62.5	7.2	30.0	11	45.8
120/208V, 3-phase, 0.8 pf	10	34.7	15	52.1	7.2	25.0	11	38.2
120/240V, 3-phase, 0.8 pf	10	30.1	15	45.2	7.2	21.7	11	33.1
277/480V, 3-phase, 0.8 pf	10	15.1	15	22.6	7.2	10.8	11	16.6
600V, 3-phase, 0.8 pf	10	12.0	15	18.1	7.2	8.7	11	13.2
NOTE: Consult your Generac dealer for additional voltages.								
GENERATOR OUTPUT VOLTAGE/KVA-50Hz	NG/LP	RatedAMP	NG/LP	RatedAMP	NG/LP	RatedAMP	NG/LP	RatedAMP
110/220V, 1-phase, 1.0 pf	8	36.4	12	54.5	6.4	29.1	8.8	40.0
115/200V, 3-phase, 0.8 pf	10	28.9	15	43.4	8	23.1	12	34.7
100/200V, 3-phase, 0.8 pf	10	28.9	15	43.4	8	23.1	12	34.7
231/400V, 3-phase, 0.8 pf	10	14.5	15	21.7	8	11.6	12	17.3
480V, 3-phase, 0.8 pf	10	12.0	15	18.1	8	9.6	12	14.5
NOTE: Consult your Generac dealer for additional voltages.								
MOTOR STARTING KVA Maximum at 35% instantaneous voltage dip with standard alternator; 50/60 Hz	20/24		30/34		20/24		30/34	
FUEL	N.G.	L.P.	N.G.	L.P.	N.G.	L.P.	N.G.	L.P.
Fuel consumption—60 Hz—100% Load								
ft. ³ hr.	185	77	265	110	145	60	204	85
m ³ hr.	5.2	2.2	7.5	3.1	4.1	1.7	5.8	2.4
Fuel consumption—50 Hz—100% Load								
ft. ³ hr.	147	61	216	90	115	48	162	67
m ³ hr.	4.2	1.7	6.1	2.5	3.2	1.4	4.6	1.9
COOLING								
Coolant capacity System lit.(US gal.)	6.6 (1.75)		6.6 (1.75)		6.6 (1.75)		6.6 (1.75)	
Engine lit.(US gal.)	0.9 (0.25)		0.9 (0.25)		0.9 (0.25)		0.9 (0.25)	
Radiator lit.(US gal.)	6.6 lit. (1.75)		6.6 (1.75)		6.6 (1.75)		6.6 (1.75)	
Coolant flow/min. 60 Hz lit.(US gal.)	25 lit. (6.6)		25 (6.6)		25 (6.6)		25 (6.6)	
50 Hz lit.(US gal.)	21 lit. (5.5)		21 (5.5)		21 (5.5)		21 (5.5)	
Heat rejection to coolant 60 Hz BTU/hr.	48,000		72,000		35,000		53,000	
Cooling air flow 60 Hz m ³ /min. (cfm)	40 (883)		40 (883)		40 (883)		40 (883)	
50 Hz m ³ /min. (cfm)	33 (736)		33 (736)		33 (736)		33 (736)	
COMBUSTION AIR REQUIREMENTS								
Flow at rated power 60 Hz m ³ /min. (cfm)	0.8 (29)		1.2 (41)		0.6 (22)		0.9 (32)	
50 Hz m ³ /min. (cfm)	0.6 (23)		1.0 (33)		0.5 (18)		0.7 (25)	
EXHAUST								
Exhaust flow at rated output 60 Hz m ³ /min. (cfm)	2.7 (96)		3.9 (137)		2.1 (75)		3.0 (105)	
50 Hz m ³ /min. (cfm)	2.2 (76)		3.2 (112)		1.7 (59)		2.4 (84)	
Max. recommended back pressure Kpa (Hg)	5.0 (1.5")		5.0 (1.5")		5.0 (1.5")		5.0 (1.5")	
Exhaust temp. at rated output °C (°F)	593(1100)		621 (1150)		566 (1050)		593 (1100)	
Exhaust outlet size N.P.T. (female)	1.5"		1.5"		1.5"		1.5"	
ENGINE								
Rated RPM 60 Hz	1800		1800		1800		1800	
50 Hz	1500		1500		1500		1500	
HP at rated KW 60 Hz	15		23		11		17	
50 Hz	13		19		10		15	
Piston speed 60 Hz m/min. (ft./min.)	295 (969)		295 (969)		295 (969)		295 (969)	
50 Hz m/min. (ft./min.)	246 (807)		246 (807)		246 (807)		246 (807)	
BMEP 60 Hz - psi	77		116		55		85	
50 Hz - psi	62		93		49		74	
POWER ADJUSTMENT FOR AMBIENT CONDITIONS								
Temperature								
-3% for every 10°C above - °C	25		25		25		25	
-1.5% for every 10°F above - °F	77		77		77		77	
Altitude								
-3% for every 300 m above - m	913		913		913		913	
-3% for every 1000 ft. above - ft.	3000		3000		3000		3000	

STANDARD ENGINE & SAFETY FEATURES

SG010/SG015

- 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
- Isochronous Governor
- Fuel Lockoff Solenoid
- Secondary Fuel Regulator (N.G. and L.P.)
- Stainless Steel Flexible Exhaust Connection
- 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
- Radiator Air Duct Adapter
- Engine Block Heater

OPTIONS

■ OPTIONAL FUEL ACCESSORIES

- Flexible Fuel Lines
- L.P. Liquid Withdrawal
- Automatic Gaseous Dual Fuel

■ OPTIONAL EXHAUST ACCESSORIES

- Critical Exhaust Silencer

■ OPTIONAL ELECTRICAL ACCESSORIES

- Battery, 12 Volt, 75 A.H., 27F
- Battery Heater
- 2A Battery Charger
- 10A Dual Rate Battery Charger

■ OPTIONAL ALTERNATOR ACCESSORIES

- Alternator Strip Heater
- Alternator Tropicalization
- Main Line Circuit Breaker

■ CONTROL CONSOLE OPTIONS

- See control console specification sheet

■ ADDITIONAL OPTIONAL EQUIPMENT

- Automatic Transfer Switch
- 3 Light Remote Annunciator
- 5 Light Remote Annunciator
- 18 Light Remote Annunciator
- Alarm Relay Panels

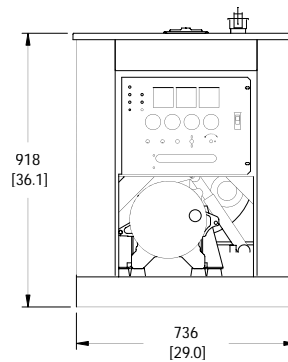
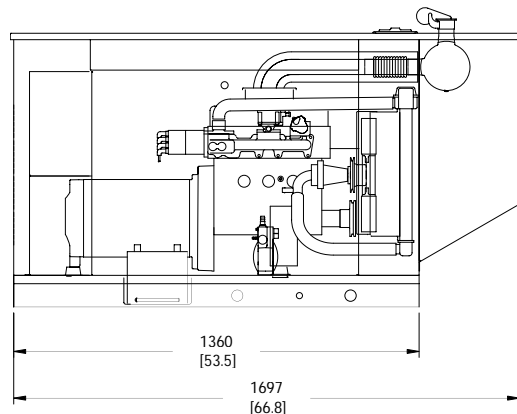
- Unit Vibration Isolators (Pad/Spring)
- Oil Make-Up System
- Oil Heater
- 5 Year Warranties
- Export Boxing
- Heavy Duty Air Cleaner

■ OPTIONAL ENCLOSURE

- Weather Protective
- Sound Attenuated
- Alluminum and Stainless Steel
- Enclosed Muffler

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.



mm [in]

WEIGHT: 1650 lbs.

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