

Home Standby - 15 Home Standby - 20 Home Standby - 25

Liquid Cooled Gas Engine Generator Sets

Continuous Standby Power Rating

15kW 60 Hz
20kW 60 Hz
25kW 60 Hz

Models:

05054 (15kW/Single Phase NG or LPV)
05053 (20kW/Single Phase NG or LPV)
05040 (25kW/Single Phase NG or LPV)



UL 2200 Listed
CSA Listed

Power Matched

GENERAC MMC 2.5FG ENGINE

Naturally Aspirated

2 Year Limited Warranty



Generac
UL Listed Transfer Switch
Options Available for models
05054, 05053 & 05040

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 F
STATOR INSULATION	Class H
VOLTAGE WAVE FORM DEVIATION	<5%
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%

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 ✓
VOLTAGE 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, while the insulation system meets the requirements for the higher class "H" rating.
- Stator windings are "trickle" varnished and rotor windings are "roll-dipped" for complete impregnation.
- Unit tested for motorstarting 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). Maximum wattage and current are subject to and limited by such factors as fuel Btu content, ambient temperature, altitude, engine power and condition, etc.

ENGINE SPECIFICATIONS

MAKE	FORD INDUSTRIAL
MODEL	2.5FG
CYLINDERS	4 in-line
DISPLACEMENT	2.5 Liter (153 cu. in.)
BORE	96.01 mm (3.78 in.)
STROKE	86.36 mm (3.4 in.)
COMPRESSION RATIO	9.37:1
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

<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	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	406 mm (16.0 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.....11" to 14" H ₂ O	

ELECTRICAL SYSTEM

BATTERY CHARGE ALTERNATOR	15 Amps at 12 V
STARTER MOTOR	12 V
RECOMMENDED BATTERY	12 V, 525 CCA @ 0° F/75 A.H., 26R
GROUND POLARITY	Negative

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OPERATING DATA

	STANDBY					
	HS-15		HS-20		HS-25	
	NG/LP	Rated AMP	NG/LP	Rated AMP	NG/LP	Rated AMP
GENERATOR OUTPUT VOLTAGE/KW - 60Hz 120/240V, 1-phase, 1.0 pf	15	62.5	20	83.3	25	104.2
MOTORSTARTING Maximum at 35% instantaneous voltage dip with standard alternator; 60 Hz	29 KVA		38 KVA		50 KVA	
FUEL Fuel consumption - 60 Hz - 100% Load	N.G.	L.P.	N.G.	L.P.	N.G.	L.P.
ft. ³ /hr.	236	92	307	122	375	150
(gal./hr.)	NA	2.53	NA	3.35	NA	4.12
m ³ /hr.	6.68	2.6	8.69	3.45	10.62	4.25
COOLING						
Coolant capacity System lit.(US gal.)	11.4 (3.0)		11.4 (3.0)		11.4 (3.0)	
Engine lit.(US gal.)	5.3 (1.4)		5.3 (1.4)		5.3 (1.4)	
Radiator lit.(US gal.)	6.1 (1.6)		6.1 (1.6)		6.1 (1.6)	
Coolant flow/min. 60 Hz lit.(US gal.)	67.8 (17.9)		67.8 (17.9)		67.8 (17.9)	
Heat rejection to coolant 60 Hz BTU/hr.	66,000		88,000		110,000	
Cooling air flow 60 Hz m ³ /min. (cfm)	963 (4200)		963 (4200)		963 (4200)	
COMBUSTION AIR REQUIREMENTS						
Flow at rated power 60 Hz m ³ /min. (cfm)	1.4 (50)		1.8 (64)		2.1 (75)	
EXHAUST						
Exhaust flow at rated output 60 Hz m ³ /min. (cfm)	3.4 (120)		4.8 (168)		5.9 (210)	
Max. recommended back pressure Kpa (Hg)	5.0 (1.5")		5.0 (1.5")		5.0 (1.5")	
Exhaust temp. at rated output °C (°F)	449 (840)		516 (960)		566 (1050)	
Exhaust outlet size N.P.T. (female)	1.5"		1.5"		1.5"	
ENGINE						
Rated at RPM 60 Hz	1800		1800		1800	
HP at rated KW 60 Hz	26		34		43	
Piston speed 60 Hz m/min. (ft./min.)	310 (1020)		310 (1020)		310 (1020)	
BMEP (PSI) 60 Hz	76		99		125	
POWER ADJUSTMENT FOR AMBIENT CONDITIONS						
Temperature -1.65% for every 10°F above - °F	77		77		77	
Altitude -3% for every 1000 ft. above - ft.	600		600		600	
SOUND OUTPUT In dB(A) at 23 feet with generator operating at full load	69		71		71	

TRANSFER SWITCH SPECIFICATIONS

(Transfer switch is not included with this model)

STANDARD ENGINE & SAFETY FEATURES



Home Standby - 15, 20 & 25

- 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
- Stainless Steel Flexible Exhaust Connection
- Rubber-Booted Engine Electrical Connections
- Fuel Lockoff Solenoid
- Isochronous Governor
- Weather Protective Enclosure (Locking Type)
- 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
- UV/Ozone Resistant Hoses
- Secondary Fuel Regulator (N.G. and L.P.)
- Flexible Fuel Line
- Critical Exhaust Silencer
- Battery Trickle Charger
- Main Line Circuit Breaker

Home Standby Control Features:

Home Standby Control Console
 Manual/Auto/Off switch
 Six light LED indicator for generator status and fault status
 Fuses (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

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