

# Home Standby - 7kW - 12kW - 15kW

## Air-Cooled Gas Engine Generator Sets

Continuous Standby Power Rating

Model # 04389 - 7kW 60Hz

Model # 04456 - 12kW 60Hz

Model # 04390 - 15kW 60Hz

### INCLUDES:

- Automatic Transfer Switch With Built-In Emergency Load Center
- Pre-wired External Connection Box
- Flexible Fuel Line
- Composite Mounting Pad
- Pre-wired conduits
- Natural Gas or LP Gas Operation
- UL 2200 Listed



## 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
  - ✓ 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.



# HOME STANDBY SPECIFICATIONS

Home Standby - 7kW - 12kW - 15kW

ENGINE	<ul style="list-style-type: none"> <li>•Generac (OHVI) Design</li> <li>•"Spiny-lok" cast iron cylinder walls</li> <li>•Electronic ignition, spark advance and compression release</li> <li>•Full pressure lubrication system</li> <li>•Low oil pressure shutdown system</li> <li>•High temperature shutdown</li> </ul>	<p>Maximizes engine "breathing" for increased fuel efficiency. Cylinder walls run cooler, reducing oil consumption. Because heat is the primary cause of engine wear, the OHVI has a significantly longer life than competitive engines.</p> <p>Rigid construction and added durability provide long engine life.</p> <p>These features combine to assure smooth, quick starting every time.</p> <p>Superior lubrication to all vital bearings means better performance, less maintenance and significantly longer engine life.</p> <p>Superior shutdown protection prevents catastrophic engine damage due to low oil.</p> <p>Prevents damage due to overheating.</p>
GENERATOR	<ul style="list-style-type: none"> <li>•Revolving field</li> <li>•Skewed stator</li> <li>•Displaced phase excitation</li> <li>•Automatic voltage regulation</li> <li>•UL 2200 Listed</li> </ul>	<p>Allows for smaller, light weight unit that operates 25% more efficiently than a revolving armature generator.</p> <p>Produces a smooth output waveform for compatibility with electronic equipment.</p> <p>Maximizes motor starting capability. Provides more surge capability than brushless generator designs.</p> <p>Regulates the output voltage to <math>\pm 2\%</math> prevents damaging voltage spikes.</p> <p>For your safety</p>
TRANSFER SWITCH	<ul style="list-style-type: none"> <li>•Fully Automatic</li> <li>•Remote Mounting</li> <li>•UL Listed</li> </ul>	<p>Transfers your vital electrical loads to the energized source of power.</p> <p>Mounts near your existing distribution panel for simple, low cost installation.</p> <p>For your safety</p>
MICROPROCESSOR CONTROL	<ul style="list-style-type: none"> <li>•Manual/Auto/Off switch</li> <li>•Utility voltage sensing</li> <li>•Utility interrupt delay</li> <li>•Engine warm-up</li> <li>•Engine cool-down</li> <li>•Seven day exerciser</li> <li>•Timed Trickle Battery charger</li> <li>•Main Line Circuit Breaker</li> </ul>	<p>Selects the operating mode.</p> <p>Constantly monitors utility voltage, setpoints 60% dropout, 80% pick-up, of standard voltage.</p> <p>Prevents nuisance start-ups of the engine, set point approximately 10 seconds.</p> <p>Ensures engine is ready to assume the load, setpoint approximately 10 seconds.</p> <p>Allows engine to cool prior to shutdown, setpoint approximately 1 minute.</p> <p>Operates engine to prevent oil seal drying and damage between power outages.</p> <p>Maintains battery amperage to insure starting.</p> <p>Protects generator from overload.</p>
UNIT	<ul style="list-style-type: none"> <li>•Weather protective enclosure</li> <li>•Enclosed critical grade muffler</li> <li>•Small, compact, attractive</li> </ul>	<p>Ensures protection against mother nature. Hinged key locking roof panel for security. Electrostatically applied epoxy paint for durability.</p> <p>Quiet, critical grade muffler is mounted inside the unit to prevent injuries.</p> <p>Makes for an easy, eye appealing installation.</p>
INSTALLATION KIT	<ul style="list-style-type: none"> <li>•Pre-wired External Connection Box</li> <li>•1' Flexible Fuel Line</li> <li>•Composite Mounting Pad</li> <li>•Pre-wired conduits</li> <li>•UL Listed wire nuts</li> </ul>	<p>Easy Installation - Virtually all hardware included, plus step-by-step photographed Installation Guide.</p>

# Home Standby - 7kW - 12kW - 15kW



GENERATOR	Model 04389 (7kW)	Model 04456 (12kW)	Model 04390 (15kW†)
Rated Maximum Continuous Power Capacity (LP).....	7,000 Watts*	12,000 Watts*	15,000 Watts*
Rated Maximum Continuous Power Capacity (NG).....	6,000 Watts*	12,000 Watts*	13,000 Watts*
Rated Voltage.....	120/240	120/240	120/240
Rated Maximum Continuous Load Current			
120 Volts .....	50.0 NG/58.3 LP	100.0 NG/100.0 LP	108.3 NG/125.0 LP
240 Volts .....	25.0 NG/29.2 LP	50.0 NG/ 50.0 LP	54.2 NG/62.5 LP
Main Line Circuit Breaker .....	30 Amp	50 Amp	60 Amp/70 Amp†
Phase .....	1	1	1
Number of Rotor Poles .....	2	2	2
Rated AC Frequency .....	60Hz	60Hz	60Hz
Power Factor .....	1	1	1
Battery Requirement (not included) .....	Group 26/26R	Group 26/26R	Group 26/26R
	12 Volts and	12 Volts and	12 Volts and
	350 Cold-cranking	550 Cold-cranking	550 Cold-cranking
	Amperes Minimum	Amperes Minimum	Amperes Minimum
Shipping Weight (Includes Transfer Switch) .....	452 Pounds	470 Pounds	487 Pounds
Dimensions (L" x W" x H").....	48 x 24 x 28-1/4	48 x 24 x 28-1/4	48 x 24 x 28-1/4

†15kW on LP fuel requires electrical upgrade kit 04578. Kit includes power harnesses and 70 amp 2-pole circuit breaker.

ENGINE	Model 04389 (7kW)	Model 04456 (12kW)	Model 04390 (15kW)
Type of Engine.....	GENERAC OHVI.....	GENERAC OHVI V-TWIN	GENERAC OHVI V-TWIN
Number of Cylinders.....	1	2	2
Rated Horsepower.....	14.5 @ 3,600 rpm	26 @ 3,600 rpm	30 @ 3,600 rpm
Displacement.....	410cc	763cc	992cc
Cylinder Block.....	Aluminum w/Cast Iron Sleeve	Aluminum w/Cast Iron Sleeve	Aluminum w/Cast Iron Sleeve
Valve Arrangement.....	Overhead Valve	Overhead Valve	Overhead Valve
Ignition System.....	Solid-state w/Magneto	Solid-state w/Magneto	Solid-state w/Magneto
Compression Ratio.....	8.6:1	9.5:1	9.5:1
Starter.....	12 Vdc	12 Vdc	12Vdc
Oil Capacity Including Filter.....	Approx. 1.7 Qts	Approx. 1.7 Qts.	Approx. 1.7 Qts.
Operating RPM.....	3,600	3,600	3,600
Fuel Consumption			
Natural Gas.....cu.ft./hr.			
.....1/2 Load	66	152	156
.....Full Load	119	215	220
Liquid Propane.....ft <sup>3</sup> /hr(gal/hr)			
.....1/2 Load	30(0.82)	56(1.53)	58(1.58)
.....Full Load	54(1.47)	76(2.08)	88(2.40)

## CONTROLS

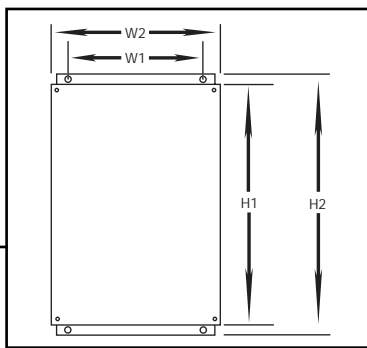
Model Switch	
-Auto .....	Automatic Start on Utility failure/7 day exerciser
-Off .....	Stops unit. Power is removed Control and charger still operate
-Manual/Test (start) .....	Start with starter control, unit stays on. If utility fails, transfer to load takes place.
Engine Start Sequence	Cyclic cranking: 7 sec. on, 7 rest (90 sec. maximum duration)
Engine Warm-up .....	10 seconds
Engine Cool-Down .....	1 minute
Starter Lock-out .....	Starter cannot re-engage until 5 sec. after engine has stopped.
2.5 Amp Timed Trickle Battery Charger .....	Standard
Automatic Voltage Regulator w/Overvoltage Protection .....	Standard
Automatic Low Oil Pressure Shutdown .....	Standard
Overspeed Shutdown .....	Standard, 72Hz
High Temperature Shutdown .....	Standard
Overcrank Protection .....	Standard
Safety Fuse .....	Standard

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): Unit not recommended for prime power applications. 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). \* Maximum wattage and current are subject to and limited by such factors as fuel Btu content, ambient temperature, altitude, engine power and condition, etc. Maximum power decreases about 3.5 percent for each 1,000 feet above sea level; and also will decrease about 1 percent for each 12° C (10° F) above 15.5° C (60°F).

TRANSFER SWITCH & EMERGENCY LOAD CENTER	Model 04389 (7kW)	Model 04456 (12kW)	Model 04390 (15kW)
No. of Poles	2	2	2
Current Rating (amps)	100	100	100
Voltage Rating (VAC)	250	250	250
Utility Voltage Monitor (fixed)			
-Pick-up	80%	80%	80%
-Dropout	60%	60%	60%
Return to Utility	approx. 13 sec.	approx. 13 sec.	approx. 13 sec.
Exerciser weekly for 12 minutes	Standard	Standard	Standard
UL Listed	Standard	Standard	Standard
Dimensions (H" x W" x D")	26.5 x 12.5 x 7	26.5 x 12.5 x 7	26.5 x 12.5 x 7
Total of Pre-wired Circuits	8	10	12
No. 15A 120V	5	3	5
No. 20A 120V	1	3	3
No. 15A 240V	-	-	-
No. 20A 240V	-	1	1
No. 30A 240V	1	1	1
Circuit Breaker Protected			
Available RMS Symmetrical			
Fault Current @ 250 Volts	10,000	10,000	10,000

## Transfer Switch Features

- Electrically operated, mechanically-held contacts for fast, positive connections.
- Rated for all classes of load, 100% equipment rated, both inductive and resistive.
- 2 pole, 250 VAC contactors.
- 160 millisecond transfer time.
- Dual coil design.
- Main contacts are silver plated or silver alloy to resist welding and sticking.
- Nema 1 enclosure is standard on the 100 amp switch.



Current Rating	No. of Poles	Height		Width		Depth
		H1	H2	W1	W2	
100 UL Listed	2	26.5	29.25	8.14	12.5	7

ATS Rated Amps	Switch Terminal	Neutral Lug/Stud	Ground Lug
100A 2-Pole UL	1 x 1/0-12	1 x 3/8-16 Stud	1 x 2/0-14

