Honeywell

# STANDBY GENERATOR

# 100 kW

## LIQUID-COOLED GENERATOR SET

Standby Power Rating

Model HT100 - 100 kW 60Hz


c UL us LISTED

Mobile Link

USA ENGINEERED & BUILT*

*Built in the USA using domestic and foreign parts

## INCLUDES

- Two Line LCD Tri-lingual Digital Sync™ Controller
- Electronic Governor
- Closed Coolant Recovery System
- Flexible Fuel Line Connector
- UV/OzoneResistant Hoses
- Mobile Link™ Cellular Monitoring System*
- Sound Attenuated Aluminum Enclosure
- CA/MA Emissions Compliant
- Natural Gas or LP Gas Operation
- 2 Year Limited Warranty
- UL 2200 Listed

* Download the free Mobile Link App at

Download on the App Store | GET IT ON Google play | Available at amazon

## FEATURES

○ **INNOVATIVE DESIGN & PROTOTYPE TESTING** are key components of our 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 Honeywell generators 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 Honeywell 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. Digital voltage regulation at ±1%.

○ **SINGLE SOURCE SERVICE RESPONSE** from our extensive dealer network provides parts and service know-how for the entire unit, from the engine to the smallest electronic component.

○ **Honeywell TRANSFER SWITCHES** The Honeywell generator line offers its own transfer systems and controls for total system compatibility.

# 100 kW
LIQUID-COOLED GENERATOR SET

# Application & Engineering Data

## GENERATOR SPECIFICATIONS

| | |
|---|---|
| • Type | Synchronous |
| • Rotor Insulation | Class H |
| • Stator Insulation | Class H |
| • Telephone Interference Factor (TIF) | <50 |
| • Alternator Output Leads Phase 3 | 6/4 wire |
| • Bearings | Sealed Ball |
| • Coupling | Gear Drive |
| • Load Capacity (Standby Rating) | 100 kW |
| • Excitation System | Brushless |

## ENGINE SPECIFICATIONS

| | |
|---|---|
| • Make | Generac |
| • Model | V-type |
| • Cylinders | 10 |
| • Displacement | 6.8 Liter |
| • Bore | 3.55 |
| • Stroke | 4.17 |
| • Compression Ratio | 9:1 |
| • Intake Air System | Naturally Aspirated |
| • Lifter Type | Hydraulic |

## GOVERNOR SPECIFICATIONS

| | |
|---|---|
| • Type | Electronic |
| • Frequency Regulation | Isochronous |
| • Steady State Regulation | ± 0.25% |

## VOLTAGE REGULATION

| | |
|---|---|
| • Type | Full Digital |
| • Sensing | Three Phase |
| • Regulation | ± 0.25% |

## 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 130 °C rise
- All models are fully prototyped tested

## ENGINE LUBRICATION SYSTEM

| | |
|---|---|
| • Oil Pump | Gear |
| • Oil Filter | Full flow spin-on |
| • Crankcase | cartridge |
| | 5 Quarts |

## ENGINE COOLING SYSTEM

| | |
|---|---|
| • Type | Closed |
| • Water Pump | Belt driven |
| • Fan Speed | 1670 |
| • Fan Diameter | 26 inches |
| • Fan Mode | Puller |

## FUEL SYSTEM

| | |
|---|---|
| • Fuel Type | Natural gas, propane vapor |
| • Carburetor | Down Draft |
| • Secondary Fuel Regulator | Standard |
| • Fuel Shut Off Solenoid | Standard |
| • Operating Fuel Pressure | 11" - 14" $H_2O$ |

## ELECTRICAL SYSTEM

| | |
|---|---|
| • Battery Charge Alternator | 12V 30 Amp |
| • Static Battery Charger | 12V, 2 Amp |
| • Recommended Battery | Group 24F, 12V, 525CCA |
| • System Voltage | 12 Volts |

## ENCLOSURE FEATURES

- Aluminum all weather protective enclosure options available – Ensures protection against mother nature. Electrostatically applied textured epoxy paint for added durability.
- Enclosed critical grade muffler – Quiet, critical grade muffler is mounted inside the unit to prevent injuries.
- Small, compact, attractive – Makes for an easy, eye appealing installation.
- SAE – Sound attenuated enclosure ensures quiet operation.

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). (All ratings in accordance with BS5514, ISO3046, ISO8528, SAE J1349 and DIN6271).

# Operating Data

| KW RATING (LP/NG) | | | 100/100 | | | |
|---|---|---|---|---|---|---|
| ENGINE SIZE | | | 6.8 Liter V-10 | | | |
| GENERATOR OUTPUT VOLTAGE/KW - 60Hz | | kW LPG | AMP | kW Nat. Gas | AMP | CB Size (Both) |
| 120/240V, 1-phase, 1.0 pf | | 100 | 417 | 89 | 371 | 450 |
| 120/208V, 3-phase, 0.8 pf | | 100 | 347 | 94 | 326 | 400 |
| 120/240V, 3-phase, 0.8 pf | | 100 | 301 | 94 | 283 | 350 |
| 277/480V, 3-phase, 0.8 pf | | 100 | 150 | 94 | 141 | 175 |
| GENERATOR LOCKED ROTOR KVA AVAILABLE @ VOLTAGE DIP OF 35% | | | | | | |
| Single phase or 208-240 3-phase | | | | 200 | | |
| 480V 3-phase | | | | 240 | | |
| ENGINE FUEL CONSUMPTION (Natural Gas) (Propane) | | Natural Gas ($ft^3$/hr) | | Propane (gal/hr.) | | ($ft^3$/hr) |
| Exercise cycle | | 130 | | 1.4 | | 52 |
| 25% of rated load | | 371 | | 4.1 | | 149 |
| 50% of rated load | | 713 | | 7.9 | | 287 |
| 75% of rated load | | 991 | | 11 | | 400 |
| 100% of rated load* | | 1260 | | 13.9 | | 507 |
| For Btu content, multiply $ft^3$/hr x 2520 (LP) or $ft^3$/hr x 1000 (NG) | | | | | | |
| ENGINE COOLING | | | | | | |
| Air flow (inlet air including alternator and combustion air) | $ft^3$/min. | | | 5,500 | | |
| System coolant capacity | US gal. | | | 4.5 | | |
| Heat rejection to coolant | BTU/hr. | | | 342,000 | | |
| Max. operating air temp. on radiator | °C (°F) | | | 60 (150) | | |
| Max. ambient temperature | °C (°F) | | | 50 (140) | | |
| COMBUSTION AIR REQUIREMENTS | | | | | | |
| Flow at rated power 60 Hz | cfm | | | 262 | | |
| SOUND EMISSIONS IN DBA | | | | | | |
| Exercising at 7 meters | | | | 68 | | |
| Normal operation at 7 meters | | | | 72 | | |
| EXHAUST | | | | | | |
| Exhaust flow at rated output 60 Hz | cfm | | | 888 | | |
| Exhaust temp. at muffler outlet | °C (°F) | | | 516 (960) | | |
| ENGINE PARAMETERS | | | | | | |
| Rated synchronous RPM | 60 Hz | | | 2300 | | |
| POWER ADJUSTMENT FOR AMBIENT CONDIIONS | | | | | | |
| Temperature Deration | 3% for every 10 °C above - °C<br>1.65% for every 10 °F above - °F | | | 25<br>77 | | |
| Altitude Deration | 1% for every 100 m above - m<br>3% for every 1000 ft. above - ft. | | | 183<br>600 | | |

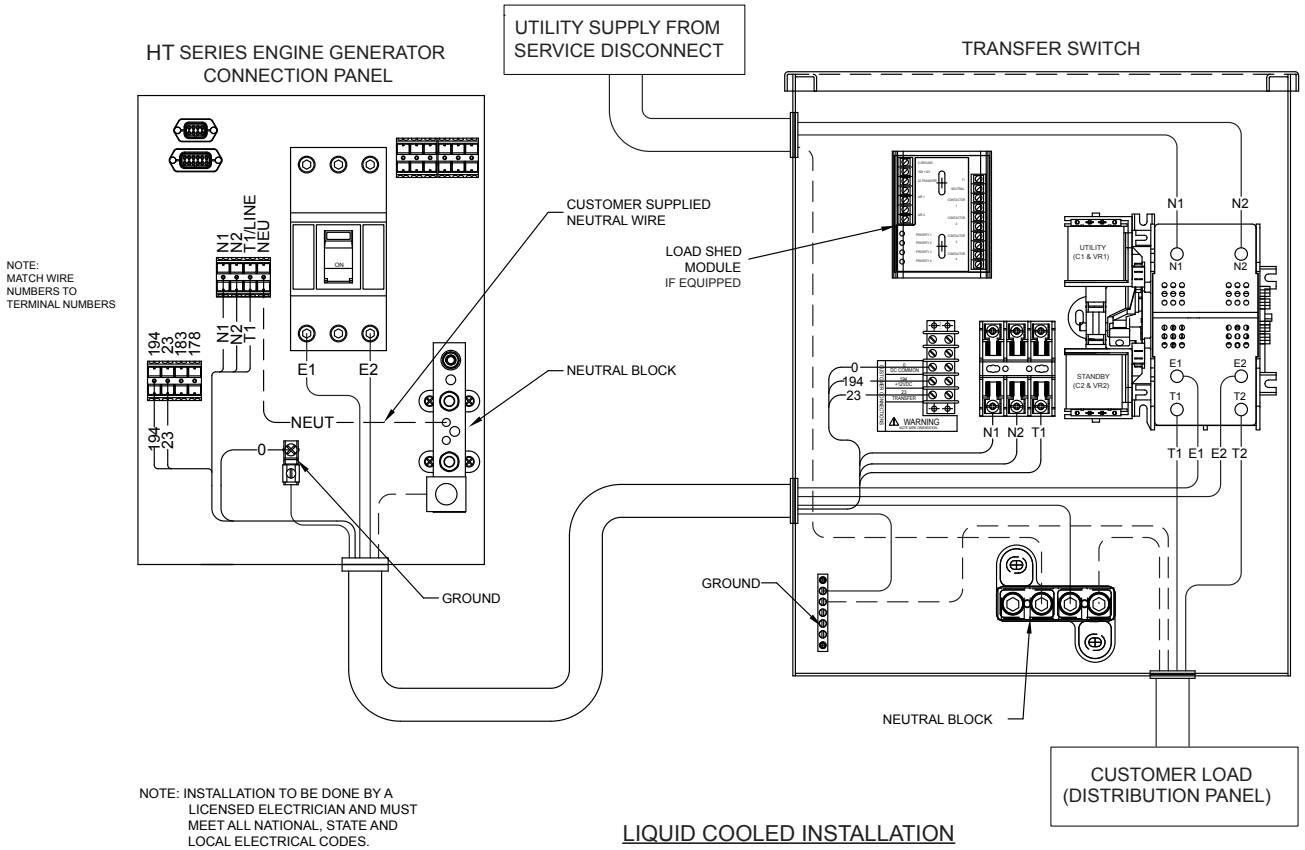
Refer to “Emissions Data Sheets” for maximum fuel flow for EPA and SCAQMD permitting purposes.

RATING: All three phases units are rated at 0.8 power factor. All single phase units are rated at 1.0 power factor. STANDBY RATING: Standby ratings apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Ratings are in accordance with ISO-3046-1. Design and specifications are subject to change without notice.

# 100 kW

## LIQUID-COOLED GENERATOR SETS

## Interconnections




NOTE: INSTALLATION TO BE DONE BY A LICENSED ELECTRICIAN AND MUST MEET ALL NATIONAL, STATE AND LOCAL ELECTRICAL CODES.

LIQUID COOLED INSTALLATION

| CIRCUIT BREAKER WIRE AND CONDUIT SIZE | | | |
|---|---|---|---|
| kW | VOLTS | CB AMPS | LUG SIZE |
| 100 | 240 1 Ø | 450 | 3-2/0 to 400 mcm |
| 100 | 240 3 Ø | 350 | (1) 600 mcm to #4 or (2) 250 mcm to 1/0 |
| 100 | 208 3 Ø | 400 | (1) 600 mcm to #4 or (2) 250 mcm to 1/0 |
| 100 | 480 3 Ø | 175 | #6 to 300 mcm |

## CONTROL FEATURES

| | | | |
|---|---|---|---|
| • 2-Line Plain Text LCD Display | Simple user interface for ease of operation | • Overspeed Shutdown | Standard |
| • Mode Switch | | • High Temperature Shutdown | Standard |
| -Auto | Automatic Start on Utility failure. 7 day exerciser. | • Overcrank Protection | Standard |
| -Off | Stops unit. Power is removed. Control and charger still operate. | • Safety Fused | Standard |
| -Manual/Test (start) | Start with starter control, unit stays on. If utility fails, transfer to load takes place. | • Failure to Transfer Protection | Standard |
| • Programmable start delay between 10-30 seconds | Standard | • Low Battery Protection | Standard |
| • Engine Start Sequence | Cyclic cranking: 16 sec. on, 7 rest (90 sec. maximum duration). | • 50 Event Run Log | Standard |
| • Engine Warm-up | 5 seconds | • Future Set Capable Exerciser | Standard |
| • Engine Cool-Down | 1 minute | • Incorrect Wiring Protection | Standard |
| • Starter Lock-out | Starter cannot re-engage until 5 sec. after engine has stopped. | • Internal Fault Protection | Standard |
| • Smart Battery Charger | Standard | • Common External Fault Capability | Standard |
| • Automatic Voltage Regulation with Over and Under Voltage Protection | Standard | • Governor Failure Protection | Standard |
| • Automatic Low Oil Pressure Shutdown | Standard | | |

Single and three phase connections may vary, refer to the owner's manual for specific connection information.

| WEIGHT DATA | | | | |
|---|---|---|---|---|
| ENGINE/KW | ENCLOSURE MATERIAL | WEIGHT (GENSET ONLY) KG (LBS) | WEIGHT (WOODEN SHIPPING CRATE/SKID) KG (LBS) | SHIPPING WEIGHT (SKID AND GENSET) KG (LBS) |
| 6.8L 100KW | ALUMINUM | 1148 (2531) | 79 (175) | 1227 (2706) |
| 6.8L 130KW | ALUMINUM | 1224 (2699) | 79 (175) | 1304 (2874) |
| 6.8L 150KW | ALUMINUM | 1130 (2492) | 79 (175) | 1210 (2667) |

NOTES:

1) MINIMUM RECOMENDED CONCRETE PAD SIZE: 1240(48.8") WIDE X 3230 (127.2") LONG. REFERENCE INSTALLATION GUIDE SUPPLIED WITH UNIT FOR CONCRETE PAD GUIDELINES.
2) ALLOW SUFFICIENT ROOM ON ALL SIDES OF THE GENERATOR FOR MAINTENANCE AND SERVICING. THIS UNIT MUST BE INSTALLED IN ACORDANCE WITH CURRENT APPLICABLE NFPA 37 AND NFPA 70 STANDARDS AS WELL AS ANY OTHER FEDERAL, STATE AND LOCAL CODES FOR MINIMUM DISTANCES FROM OTHER STRUCTURES.
3) CIRCUIT BREAKER INFORMATION: SEE SPECIFICATION SHEET WITHIN OWNERS MANUAL.
4) INSIDE STUB-UP AREA FOR AC LOAD LEAD CONDUIT CONNECTION, NEUTRAL CONNECTION, BATTERY CHARGER 120 VOLT AC (.5 AMP MAX.) CONNECTION, AND ACCESS TO TRANSFER SWITCH CONTROL WIRES. REMOVE FRONT COVER FOR ACCESS.

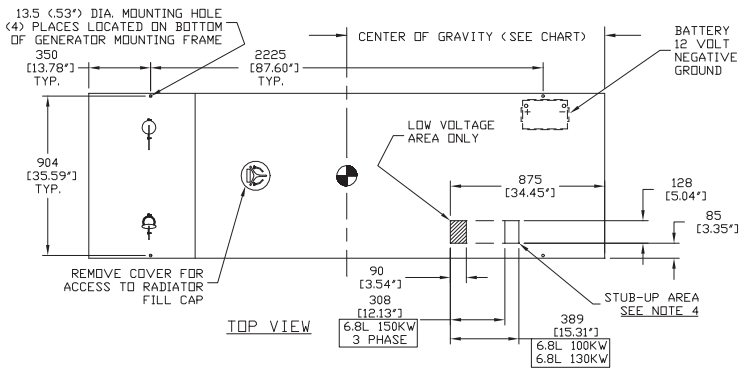
4A) FIELD CUT HOLE IS ONLY REQUIRED FOR MOUNTING OF GENERATOR ON AN EXISTING PAD.

5) REFERENCE OWNERS MANUAL FOR LIFTING WARNINGS.
6) REMOVE EITHER LEFT OR RIGHT HAND SIDE PANEL TO ACCESS EXHAUST MUFFLERS AND FAN BELT.

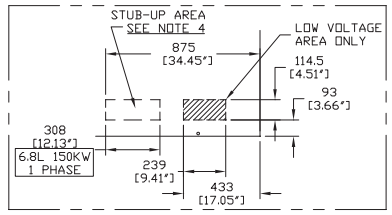
SERVICE ITEM ACCESSIBILITY CHART

| SERVICE ITEM | ACCESS | | |
|---|---|---|---|
| | 100KW 6.8L | 130KW 6.8L | 150KW 6.8L |
| OIL FILL CAP | THRU RIGHT FRONT DOOR | | |
| OIL DIP STICK | THRU LEFT FRONT DOOR | | |
| OIL FILTER | THRU LEFT FRONT DOOR | | |
| OIL DRAIN HOSE | THRU RIGHT FRONT DOOR | | |
| RADIATOR DRAIN HOSE | THRU LEFT FRONT DOOR | | |
| AIR CLEANER ELEMENT | EITHER FRONT DOORS | | |
| SPARK PLUGS | BOTH FRONT DOORS | | |
| MUFFLERS | SEE NOTE 6 | | |
| FAN BELT | SEE NOTE 6 | | |
| BATTERY | THRU RIGHT REAR DOOR | | |
| *GEARBOX FILL & DRAIN | THRU RIGHT REAR DOOR | | |

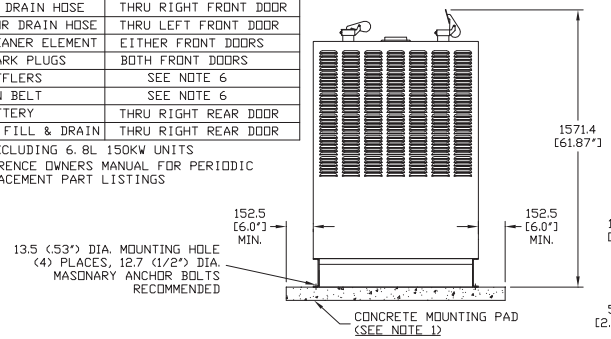
*NOTE: EXCLUDING 6.8L 150KW UNITS
REFERENCE OWNERS MANUAL FOR PERIODIC REPLACEMENT PART LISTINGS



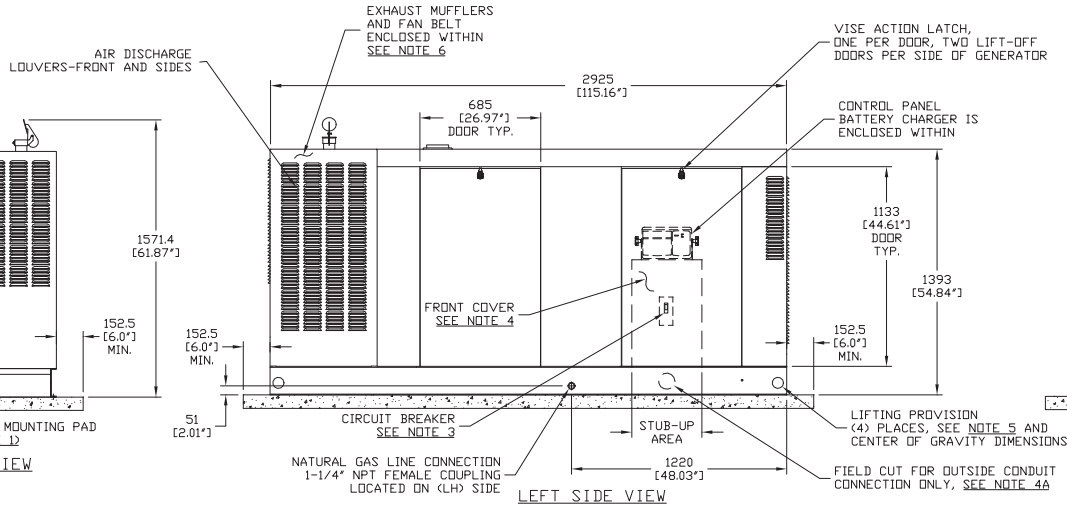

| CENTER OF GRAVITY |
|---|
| 1275 (50.2") - 100KW 6.8L |
| 1230 (48.4") - 130KW 6.8L |
| 1315 (51.8") - 150KW 6.8L |



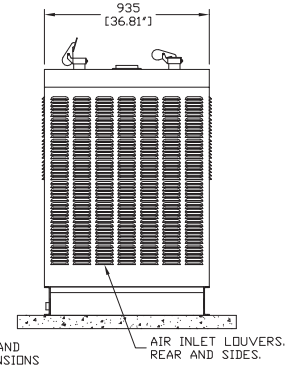
150KW SINGLE PHASE STUB-UP AREA



FRONT VIEW



LEFT SIDE VIEW



REAR VIEW

# Installation Layout

Honeywell

## AVAILABLE ACCESSORIES

| Model # | Product | Description |
|---|---|---|
| 005633-0 | Cold Weather Kit | If the temperature regularly falls below 32° F, install a cold weather kit to maintain optimal battery temperature. Kit consists of battery warmer with thermostat built into the wrap. |
| 005620-0 | Extreme Cold Weather Kit | Recommended where the temperature regularly falls below 32º F for extended periods of time. For liquid-cooled units only. |
| 006160-0 | Paint Kit | Industrial Grey |
| 005660-0 | Scheduled Maintenance Kit | The Liquid-cooled Scheduled Maintenance Kits offer all the hardware necessary to perform a complete maintenance on Honeywell liquid-cooled generators. |
| 006874-0 | Smart Management Module (50 Amps) | Manage large loads by utilizing up to 8 individual Smart Management modules. These devices are installed directly in line with existing appliance wiring for easy installation. |

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