

STANDBY GENERATOR

100 kW

LIQUID-COOLED GENERATOR SET

Standby Power Rating

Model HT100 - 100 kW 60Hz



INCLUDES

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

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. An unequalled $\pm 1\%$ voltage regulation.
- **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.

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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 |
| • Valve Seats | Hardened |
| • Lifter Type | Hydraulic |

GOVERNOR SPECIFICATIONS

| | | |
|---------------------------|-------------|-----|
| • Type | Electronic | |
| • Frequency Regulation | Isochronous | |
| • Steady State Regulation | ± 0.25% | |
| • Adjustments For | Speed | Yes |
| | Droop | Yes |

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 cartridge |
| • Crankcase | 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 ₂ O |

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 | | Propane | | |
| | | (ft ³ /hr.) | | (gal/hr.) | cu ft/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 | | | | 61 | | |
| 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 CONDIIIONS | | | | | | |
| Temperature Deration | | 3% for every 10 °C above - °C | | 25 | | |
| | | 1.65% for every 10 °F above - °F | | 77 | | |
| Altitude Deration | | 1% for every 100 m above - m | | 183 | | |
| | | 3% for every 1000 ft. above - ft. | | 600 | | |

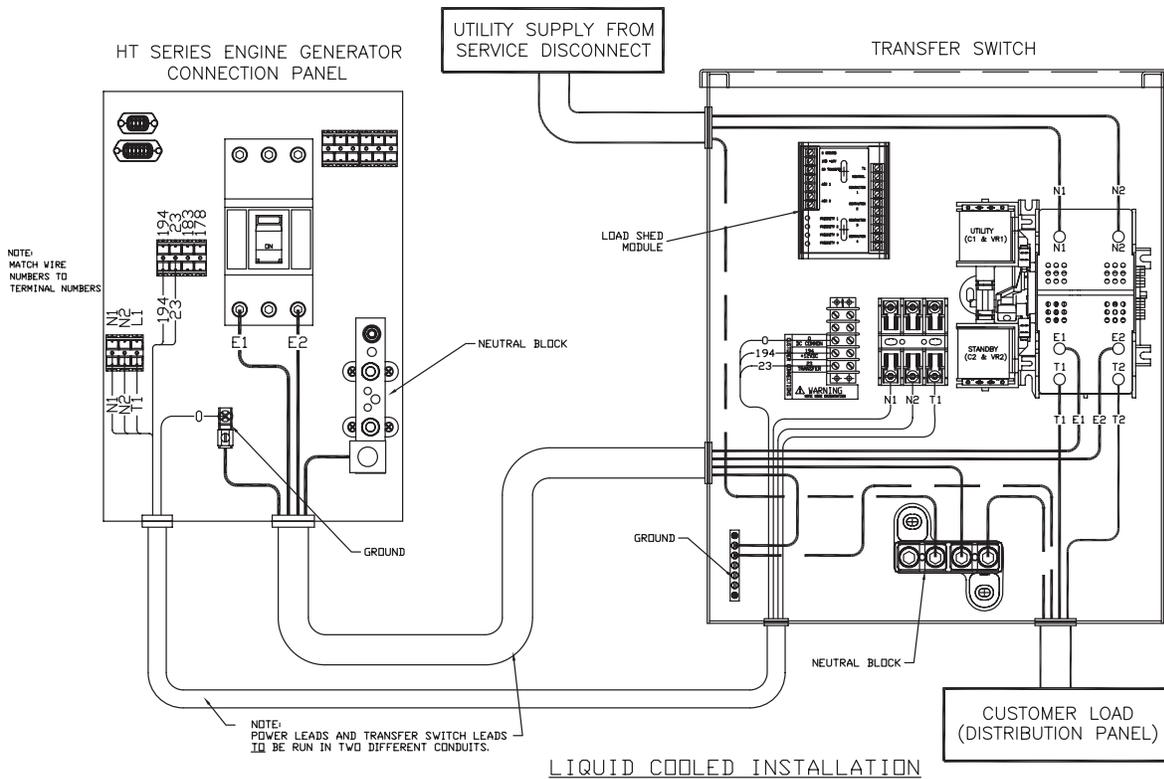
Refer to "Emissions Data Sheets" for maximum fuel flow for EPA and SCAQMD permitting purposes.

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



LIQUID COOLED INSTALLATION

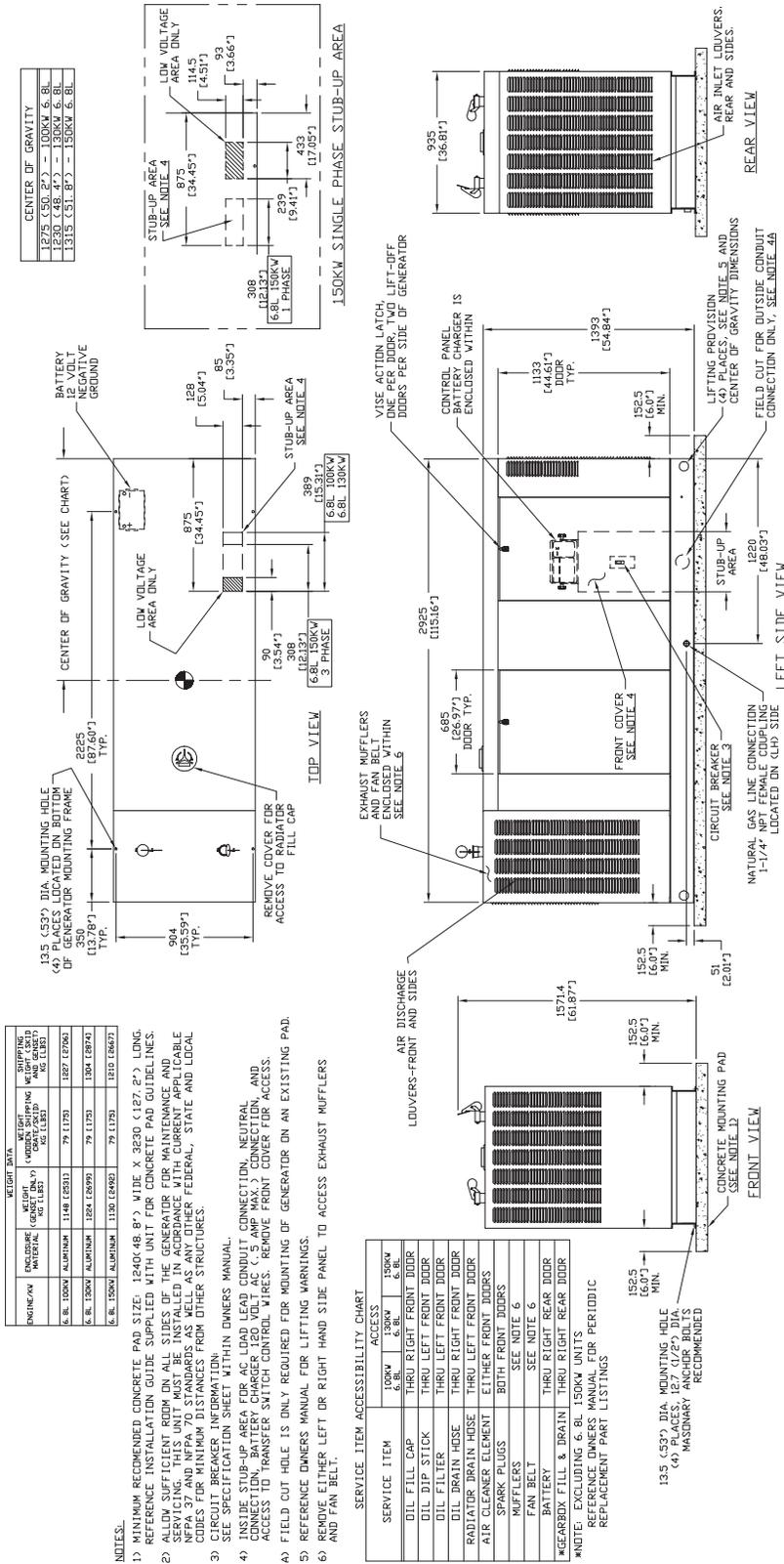
| CIRCUIT BREAKER WIRE AND CONDUIT SIZE | | | |
|---------------------------------------|---------|---------|---|
| kW | VOLTS | CB AMPS | LUG SIZE |
| 100 | 240 1 Ø | 450 | 3-2/0 to 400 mcm |
| 100 | 240 3 Ø | 350 | (1) 600 mcm to #4 or (2) 250 mcm to 1/0 |
| 100 | 208 3 Ø | 400 | (1) 600 mcm to #4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

CONTROL FEATURES

| | | | |
|--|---|--|---|
| <ul style="list-style-type: none"> • 2-Line Plain Text LCD Display • Mode Switch <ul style="list-style-type: none"> -Auto -Off -Manual/Test (start) • Programmable start delay between 10-30 seconds • Engine Start Sequence <ul style="list-style-type: none"> • Engine Warm-up • Engine Cool-Down • Starter Lock-out • Smart Battery Charger • Automatic Voltage Regulation with Over and Under Voltage Protection | <p>Simple user interface for ease of operation</p> <p>Automatic Start on Utility failure. 7 day exerciser</p> <p>Stops unit. Power is removed. Control and charger still operate.</p> <p>Start with starter control, unit stays on. If utility fails, transfer to load takes place.</p> <p>Standard</p> <p>Cyclic cranking: 16 sec. on, 7 rest (90 sec. maximum duration)</p> <p>5 seconds</p> <p>1 minute</p> <p>Starter cannot re-engage until 5 sec. after engine has stopped.</p> <p>Standard</p> <p>Standard</p> | <ul style="list-style-type: none"> • Automatic Low Oil Pressure Shutdown • Overspeed Shutdown • High Temperature Shutdown • Overcrank Protection • Safety Fused • Failure to Transfer Protectio • Low Battery Protection • 50 Event Run Log • Future Set Capable Exerciser • Incorrect Wiring Protection • Internal Fault Protection • Common External Fault Capability • Governor Failure Protection | <p>Standard</p> |
|--|---|--|---|

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

Installation Layout



AVAILABLE ACCESSORIES

| Model # | Product | Description |
|---------|---------------------------|---|
| 5633 | 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. |
| 5620 | Extreme Cold Weather Kit | Recommended where the temperature regularly falls below 32° F for extended periods of time. For liquid cooled units only. |
| 6160 | Paint Kit | Industrial Grey Kit |
| 5660 | Scheduled Maintenance Kit | The Liquid-Cooled Scheduled Maintenance Kits offer all the hardware necessary to perform a complete maintenance on Honeywell liquid-cooled generators. |
| 5951 | Sync Wireless Remote | Remotely control generator functions with the advanced model's LCD display. In addition to remote testing of the generator, set the exercise cycle and maintenance interval reminders |

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