STANDBY GENERATOR

45 kW
LIQUID-COOLED GENERATOR SET

Standby Power Rating
Model HT045 - 45 kW 60Hz

INCLUDES
• Two Line LCD Tri-lingual Digital Sync Controller
• Electronic Governor
• Closed Coolant Recovery System
• Flexible Fuel Line Connector
• Wireless Remote Monitor**
• Sound Attenuated Aluminum Enclosure
• UV/Ozone Resistant Hoses
• CA/MA Emissions Compliant*
• Natural Gas or LP Gas Operation
• 5 Year Limited Warranty**
• UL 2200 Listed

* When specified with a catalyst
** 3-Phase systems receive a 2 Year Limited Warranty and do not included the clipped roof corners or the remote monitor.

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 ±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.
45 kW LIQUID-COOLED GENERATOR SET

APPLICATION & ENGINEERING DATA

GENERATOR SPECIFICATIONS
- Type: Synchronous
- Rotor Insulation: Class F
- Stator Insulation: Class H
- Telephone Interference Factor (TIF): <50
- Alternator Output Leads 1-Phase: 4 wire
- Alternator Output Leads 3-Phase: 6 wire
- Bearings: Sealed Ball
- Coupling: Flexible Disc
- Load Capacity (Standby Rating): 45 kW
- Excitation System: Direct

ENGINE LUBRICATION SYSTEM
- Oil Pump: Gear
- Oil Filter: Full flow spin-on cartridge
- Crankcase: 6.5 Quarts

ENGINE COOLING SYSTEM
- Type: Pressurized Closed
- Fan Speed: 1954
- Fan Diameter: 22 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: 5” - 14” H₂O

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

ENCLOSURE FEATURES
- Aluminum weather protective enclosure – 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.
- Small, compact, attractive – Makes for easy installation of an eye appealing unit.
- SAE – Sound attenuated enclosure ensures quiet operation.

ENGINE SPECIFICATIONS
- Make: Generac
- Model: V8
- Cylinders: 8
- Displacement: 5.4 Liter
- Bore: 3.55
- Stroke: 4.17
- Compression Ratio: 9:1
- Intake Air System: Naturally Aspirated
- Lifter Type: Roller, Hydraulic

GOVERNOR SPECIFICATIONS
- Type: Electronic
- Frequency Regulation: Isochronous
- Steady State Regulation: ± 0.25%

VOLTAGE REGULATION
- Type: Electronic
- Sensing: Single Phase
- Regulation: ± 1%

GENERATOR FEATURES
- Revolving field heavy duty generator
- Directly connected to the engine
- Operating temperature rise 120 °C above at 40 °C ambient
- Insulation is Class F rated at 145 °C rise at 25 °C ambient
- All models are fully prototyped tested

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)

<table>
<thead>
<tr>
<th>Generator Output Voltage/KW - 60Hz</th>
<th>kW LPG</th>
<th>AMP</th>
<th>kW Nat. Gas</th>
<th>AMP</th>
<th>CB Size (Both)</th>
</tr>
</thead>
<tbody>
<tr>
<td>120/240V, 1-phase, 1.0 pf</td>
<td>45</td>
<td>188</td>
<td>45</td>
<td>188</td>
<td>200</td>
</tr>
<tr>
<td>120/208V, 3-phase, 0.8 pf</td>
<td>45</td>
<td>156</td>
<td>45</td>
<td>156</td>
<td>175</td>
</tr>
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<td>120/240V, 3-phase, 0.8 pf</td>
<td>45</td>
<td>135</td>
<td>45</td>
<td>135</td>
<td>150</td>
</tr>
<tr>
<td>277/480V, 3-phase, 0.8 pf</td>
<td>45</td>
<td>68</td>
<td>45</td>
<td>68</td>
<td>80</td>
</tr>
</tbody>
</table>

### Engine Size

| Engine Size | 5.4 Liter V8 |

### Generator Output Voltage/KW - 60Hz

<table>
<thead>
<tr>
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<th>kW LPG</th>
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<td>68</td>
<td>80</td>
</tr>
</tbody>
</table>

### Engine Fuel Consumption (Natural Gas) (Propane)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Natural Gas (ft³/hr.)</th>
<th>Propane (gal/hr)</th>
<th>ft³/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercise cycle</td>
<td>95</td>
<td>1</td>
<td>38</td>
</tr>
<tr>
<td>25% of rated load</td>
<td>204</td>
<td>2.3</td>
<td>82</td>
</tr>
<tr>
<td>50% of rated load</td>
<td>392</td>
<td>4.3</td>
<td>157</td>
</tr>
<tr>
<td>75% of rated load</td>
<td>547</td>
<td>6.1</td>
<td>220</td>
</tr>
<tr>
<td>100% of rated load*</td>
<td>756</td>
<td>8.3</td>
<td>302</td>
</tr>
</tbody>
</table>

For Btu content, multiply ft³/hr x 2520 (LP) or ft³/hr x 1000 (NG)

### Engine Cooling

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air flow (inlet air including alternator and combustion air)</td>
<td>4350 ft³/min.</td>
</tr>
<tr>
<td>System coolant capacity</td>
<td>3.0 US gal.</td>
</tr>
<tr>
<td>Heat rejection to coolant</td>
<td>186,000 BTU/hr.</td>
</tr>
<tr>
<td>Max. operating air temp. on radiator</td>
<td>60 °C (150 °F)</td>
</tr>
<tr>
<td>Max. ambient temperature</td>
<td>50 °C (140 °F)</td>
</tr>
</tbody>
</table>

### Combustion Air Requirements

<table>
<thead>
<tr>
<th>Condition</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow at rated power 60 Hz</td>
<td>163 cfm</td>
</tr>
</tbody>
</table>

### Sound Emissions in dBA

<table>
<thead>
<tr>
<th>Condition</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercising at 7 meters</td>
<td>63</td>
</tr>
<tr>
<td>Normal operation at 7 meters</td>
<td>68</td>
</tr>
</tbody>
</table>

### Exhaust

<table>
<thead>
<tr>
<th>Condition</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exhaust flow at rated output 60 Hz</td>
<td>414 cfm</td>
</tr>
<tr>
<td>Exhaust temp. at muffler outlet</td>
<td>1025 °F</td>
</tr>
</tbody>
</table>

### Engine Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated synchronous RPM</td>
<td>60 Hz</td>
</tr>
<tr>
<td></td>
<td>1800</td>
</tr>
</tbody>
</table>

### Power Adjustment for Ambient Conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature Deration</td>
<td>3% for every 10 °C above 25 °C</td>
</tr>
<tr>
<td>- °C</td>
<td>1.65% for every 10 °F above - °F 77 °F</td>
</tr>
<tr>
<td>Altitude Deration</td>
<td>1% for every 100 m 183 m</td>
</tr>
<tr>
<td>above - m</td>
<td>3% for every 1000 ft. above - ft. 600 ft.</td>
</tr>
</tbody>
</table>

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.
**CONTROL FEATURES**

- **2-Line Plain Text LCD Display**
- **Mode Switch**
  - Auto
  - Off
  - Manual/Test (start)
- **Programmable start delay between 10-30 seconds**
- **Engine Start Sequence**
- **Engine Warm-up**
- **Engine Cool-Down**
- **Starter Lock-out**
- **Smart Battery Charger**
- **Automatic Voltage Regulation with Over and Under Voltage Protection**

Simple user interface for ease of operation.

Automatic Start on Utility failure. 7 day exerciser
Stops unit. Power is removed. Control and charger still operate.
Start with starter control, unit stays on. If utility falls, transfer to load takes place.
Standard

Cyclic cranking: 16 sec. on, 7 rest (90 sec. maximum duration).
5 seconds
1 minute
Starter cannot re-engage until 5 sec. after engine has stopped.
Standard

- **Automatic Low Oil Pressure Shutdown**
- **Overspeed Shutdown**
- **High Temperature Shutdown**
- **Overcrank Protection**
- **Safety Fused**
- **Failure to Transfer Protection**
- **Low Battery Protection**
- **50 Event Run Log**
- **Future Set Capable Exerciser**
- **Incorrect Wiring Protection**
- **Internal Fault Protection**
- **Common External Fault Capability**
- **Governor Failure Protection**

Standard
Standard
Standard
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Standard

Single and three phase connections may vary, refer to the owner’s manual for specific connection information.
NOTES:
1) MINIMUM RECOMMENDED CONCRETE PAD SIZE: 1155 (45.5") WIDE X 2255 (88.8") 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 ACCORDANCE 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 MUFFLER AND FAN BELT.

SERVICE ITEM ACCESSIBILITY CHART

REFERENCE OWNERS MANUAL FOR PERIODIC REPLACEMENT PART LISTINGS

NOTES:
- Minimum recommended concrete pad size: 1155 (45.5") wide x 2255 (88.8") long. Reference installation guide supplied with unit for concrete pad guidelines.
- Allow sufficient room on all sides of the generator for maintenance and servicing. This unit must be installed in accordance 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.
- Circuit breaker information: see specification sheet within owners manual.
- 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.
- Field cut hole is only required for mounting of generator on an existing pad.
- Reference owners manual for lifting warnings.
- Remove either left or right hand side panel to access exhaust muffler and fan belt.

Service Item

<table>
<thead>
<tr>
<th>Service Item</th>
<th>THRU RIGHT DOOR</th>
<th>THRU LEFT DOOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil Fill Cap</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil Dip Stick</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil Filter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil Drain Hose</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radiator Drain Hose</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air Cleaner Element</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spark Plugs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Muffler</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Battery</td>
<td></td>
<td></td>
</tr>
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Reference owners manual for periodic replacement part listings.

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## AVAILABLE ACCESSORIES

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<tr>
<th>Model #</th>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5632</td>
<td>Cold Weather Kit</td>
<td>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.</td>
</tr>
<tr>
<td>6204</td>
<td>Extreme Cold Weather Kit</td>
<td>Recommended where the temperature regularly falls below 32° F for extended periods of time. For liquid-cooled units only.</td>
</tr>
<tr>
<td>6160</td>
<td>Paint Kit</td>
<td>Paint Kit</td>
</tr>
<tr>
<td>6205</td>
<td>Scheduled Maintenance Kit</td>
<td>The Liquid-cooled Scheduled Maintenance Kits offer all the hardware necessary to perform a complete maintenance on Honeywell liquid-cooled generators.</td>
</tr>
<tr>
<td>5951</td>
<td>Advanced Sync Wireless Remote</td>
<td>Remotely control generator functions with the advanced model’s LED display. In addition to remote testing of the generator, set the exercise cycle and maintenance interval reminders.</td>
</tr>
<tr>
<td>6102</td>
<td>DLM Load Control Module (50 Amps)</td>
<td>DLM Modules are used in conjunction with the Sync Smart Switch to increase its load management capabilities. It gives the Sync Smart Switch additional load management flexibility not found in any other transfer switch.</td>
</tr>
<tr>
<td>5621</td>
<td>Auxiliary Transfer Switch Contact Kit</td>
<td>The auxiliary transfer switch contact kit allows the transfer switch to lock out a single large electrical load you may not need.</td>
</tr>
</tbody>
</table>