

## 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/OzoneResistant 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.
- **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.
- **TEST CRITERIA**
  - ◆ PROTOTYPE TESTED
  - ◆ SYSTEM TORSIONAL TESTED
  - ◆ NEMA MG1-22 EVALUATION
  - ◆ MOTOR STARTING ABILITY

# 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 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

### 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" H <sub>2</sub> O

### 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.

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

<b>KW RATING (LP/NG)</b>		45/45			
<b>ENGINE SIZE</b>		5.4 Liter V8			
<b>GENERATOR OUTPUT VOLTAGE/KW - 60Hz</b>		<b>kW LPG</b>	<b>AMP</b>	<b>kW Nat. Gas</b>	<b>AMP</b>
120/240V, 1-phase, 1.0 pf		45	188	45	188
120/208V, 3-phase, 0.8 pf		45	156	45	156
120/240V, 3-phase, 0.8 pf		45	135	45	135
277/480V, 3-phase, 0.8 pf		45	68	45	68
<b>ENGINE FUEL CONSUMPTION (Natural Gas) (Propane)</b>		<b>Natural Gas (ft<sup>3</sup>/hr.)</b>	<b>gal/hr</b>	<b>Propane ft<sup>3</sup>/hr</b>	
Exercise cycle		95	1	38	
25% of rated load		204	2.3	82	
50% of rated load		392	4.3	157	
75% of rated load		547	6.1	220	
100% of rated load*		756	8.3	302	
For Btu content, multiply ft <sup>3</sup> /hr x 2520 (LP) or ft <sup>3</sup> /hr x 1000 (NG)					
<b>ENGINE COOLING</b>					
Air flow (inlet air including alternator and combustion air)		ft <sup>3</sup> /min.		4350	
System coolant capacity		US gal.		3.0	
Heat rejection to coolant		BTU/hr.		186,000	
Max. operating air temp. on radiator		°C (°F)		60 (150)	
Max. ambient temperature		°C (°F)		50 (140)	
<b>COMBUSTION AIR REQUIREMENTS</b>					
Flow at rated power 60 Hz		cfm		163	
<b>SOUND EMISSIONS IN DBA</b>					
Exercising at 7 meters				63	
Normal operation at 7 meters				68	
<b>EXHAUST</b>					
Exhaust flow at rated output 60 Hz		cfm		414	
Exhaust temp. at muffler outlet		°F		1025	
<b>ENGINE PARAMETERS</b>					
Rated synchronous RPM		60 Hz		1800	
<b>POWER ADJUSTMENT FOR AMBIENT CONDIIIONS</b>					
Temperature Deration - °C		3% for every 10 °C above		25	
		1.65% for every 10 °F above - °F		77	
Altitude Deration above - m		1% for every 100 m		183	
		3% for every 1000 ft. above - ft.		600	

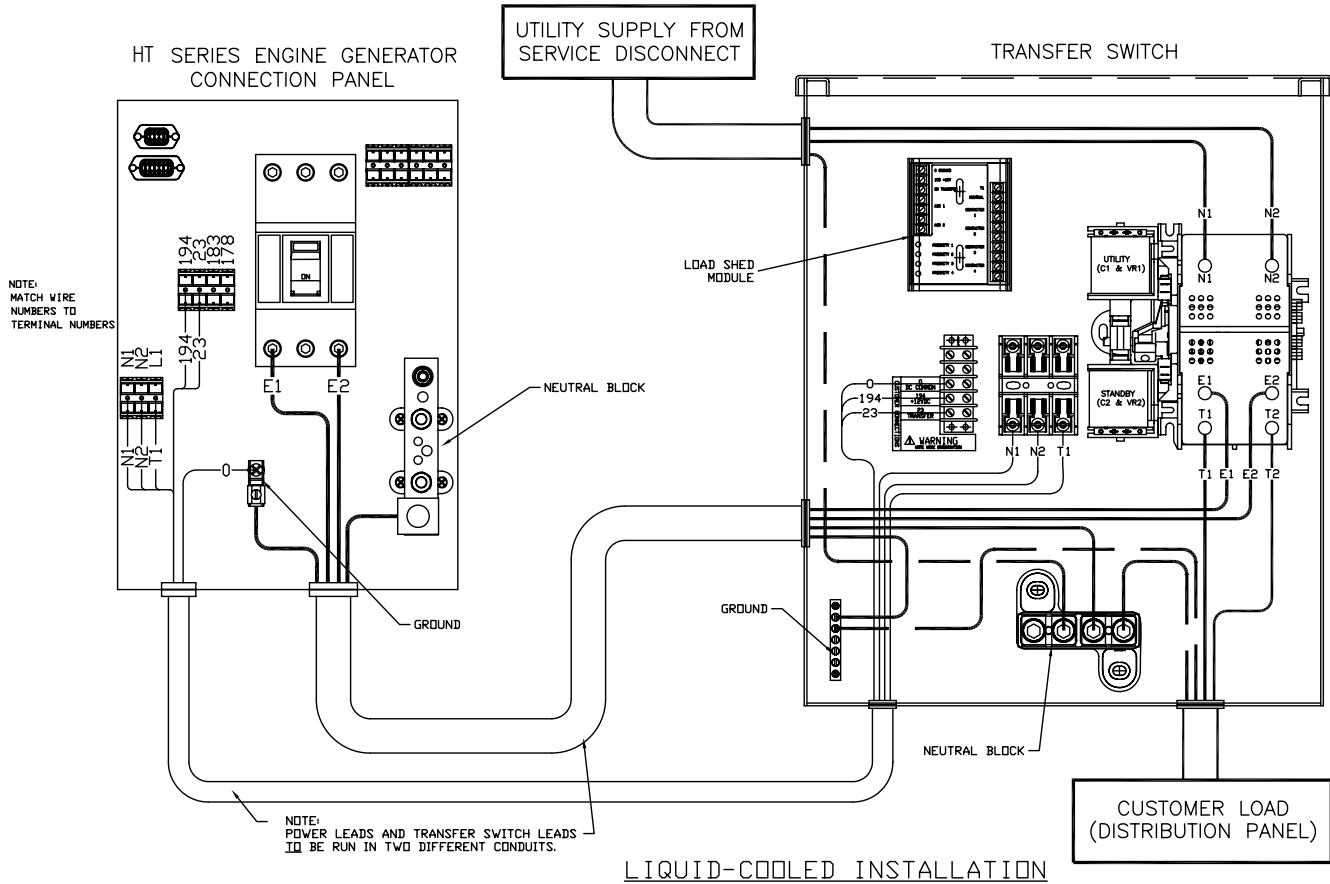
Refer to "Emissions Data Sheets" for maximum fuel flow for EPA and SCAQMD permitting purposes.

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.

# 45 kW

## LIQUID-COOLED GENERATOR SETS

## Interconnections



### CONTROL FEATURES

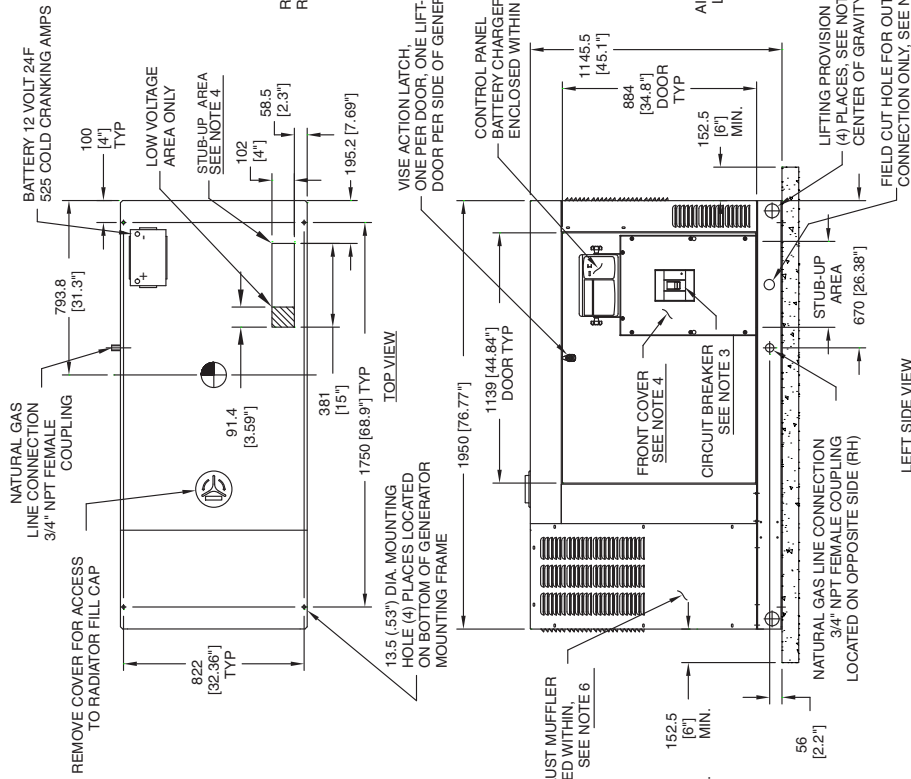
<ul style="list-style-type: none"> <li>• 2-Line Plain Text LCD Display</li> <li>• Mode Switch               <ul style="list-style-type: none"> <li>-Auto</li> <li>-Off</li> <li>-Manual/Test (start)</li> </ul> </li> <li>• Programmable start delay between 10-30 seconds</li> <li>• Engine Start Sequence               <ul style="list-style-type: none"> <li>• Engine Warm-up</li> <li>• Engine Cool-Down</li> <li>• Starter Lock-out</li> </ul> </li> <li>• Smart Battery Charger</li> <li>• Automatic Voltage Regulation with Over and Under Voltage Protection</li> </ul>	<p>Simple user interface for ease of operation.</p> <p>Automatic Start on Utility failure. 7 day exerciser 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"> <li>• Automatic Low Oil Pressure Shutdown</li> <li>• Overspeed Shutdown</li> <li>• High Temperature Shutdown</li> <li>• Overcrank Protection</li> <li>• Safety Fused</li> <li>• Failure to Transfer Protection</li> <li>• Low Battery Protection</li> <li>• 50 Event Run Log</li> <li>• Future Set Capable Exerciser</li> <li>• Incorrect Wiring Protection</li> <li>• Internal Fault Protection</li> <li>• Common External Fault Capability</li> <li>• Governor Failure Protection</li> </ul>	<p>Standard</p> <p>Standard</p> <p>Standard</p> <p>Standard</p> <p>Standard</p> <p>Standard</p> <p>Standard</p> <p>Standard</p> <p>Standard</p> <p>Standard</p> <p>Standard</p> <p>Standard</p> <p>Standard</p>
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Single and three phase connections may vary, refer to the owner's manual for specific connection information.

# Installation Layout

SERVICE ITEM ACCESSIBILITY CHART	
SERVICE ITEM	THRU RIGHT DOOR
OIL FILL CAP	THRU LEFT DOOR
OIL DIP STICK	THRU LEFT DOOR
OIL FILTER	THRU LEFT DOOR
OIL DRAIN HOSE	THRU LEFT DOOR
RADIATOR DRAIN HOSE	THRU LEFT DOOR
AIR CLEANER ELEMENT	BOTH DOORS
SPARK PLUGS	SEE NOTE 6
MUFFLER	SEE NOTE 6
FAN BELT	THRU RIGHT DOOR
BATTERY	THRU RIGHT DOOR

REFERENCE OWNERS MANUAL FOR PERIODIC REPLACEMENT PART LISTINGS



WEIGHT DATA	
WEIGHT (GE/SET ONLY) KG (LBS)	WEIGHT (WOOD CRATES/SET) KG (LBS)
688 [1516]	44 [98]
	732 [1614]

- 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.

## AVAILABLE ACCESSORIES

Model #	Product	Description
5632	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.
6204	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	Paint Kit
6205	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	Advanced Sync Wireless Remote	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.
6102	DLM Load Control Module (50 Amps)	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.
5621	Auxillary Transfer Switch Contact Kit	The auxiliary transfer switch contact kit allows the transfer switch to lock out a single large electrical load you may not need.

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