

STANDBY GENERATOR

45 kW

LIQUID-COOLED GENERATOR SET

Standby Power Rating

Model HT045 - 45 kW 60Hz



INCLUDES

- PrecisionPower™ Electrical Technology
- 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 include 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
- **PrecisionPower™ ELECTRICAL TECHNOLOGY** Superior harmonics and sine wave form produce less than 5% Total Harmonic Distortion for utility quality power. This allows confident operation of sensitive electronic equipment and micro-chip based appliances, such as variable speed HVAC.
- **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.

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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	4 wire
• Bearings	Sealed Ball
• Coupling	Flexible Disc
• Load Capacity (Standby Rating)	45 kW
• Excitation System	Direct

ENGINE SPECIFICATIONS

• Make	Generac
• Model	V6
• Cylinders	6
• Displacement	4.2 Liter
• Bore	3.81
• Stroke	3.74
• Compression Ratio	9.3:1
• Intake Air System	Naturally Aspirated
• Valve Seats	Precision ground and hardened
• Lifter Type	Roller, Hydraulic

GOVERNOR SPECIFICATIONS

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

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 a 40 °C ambient
- Insulation is Class H rated at 150 °C rise
- All models are fully prototyped tested

ENGINE LUBRICATION SYSTEM

• Oil Pump	Gear
• Oil Filter	Full flow spin-on cartridge
• Crankcase	6 Quarts

ENGINE COOLING SYSTEM

• Type	Pressurized Closed
• Water Pump	10.8 gal/min
• Fan Speed	1050
• 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 ₂ 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 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)		45/45			
ENGINE SIZE		4.2 Liter V6			
GENERATOR OUTPUT VOLTAGE/KW - 60Hz		kW LPG	AMP	kW Nat. Gas	AMP
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
ENGINE FUEL CONSUMPTION (Natural Gas) (Propane)		Natural Gas		Propane	
		(ft ³ /hr.)		(gal/hr.)	cu ft/hr
Exercise cycle		70		0.8	28
25% of rated load		205		2.23	81
50% of rated load		370		4.03	147
75% of rated load		516		5.6	205
100% of rated load*		655		7.20	260
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.		2,460	
System coolant capacity		US gal.		3.0	
Heat rejection to coolant		BTU/hr.		165,000	
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		235	
SOUND EMISSIONS IN DBA					
Exercising at 7 meters				60	
Normal operation at 7 meters				65	
EXHAUST					
Exhaust flow at rated output 60 Hz		cfm		395	
Exhaust temp. at muffler outlet		°F		1100	
ENGINE PARAMETERS					
Rated synchronous RPM		60 Hz		1800	
POWER ADJUSTMENT FOR AMBIENT CONDIIONS					
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	

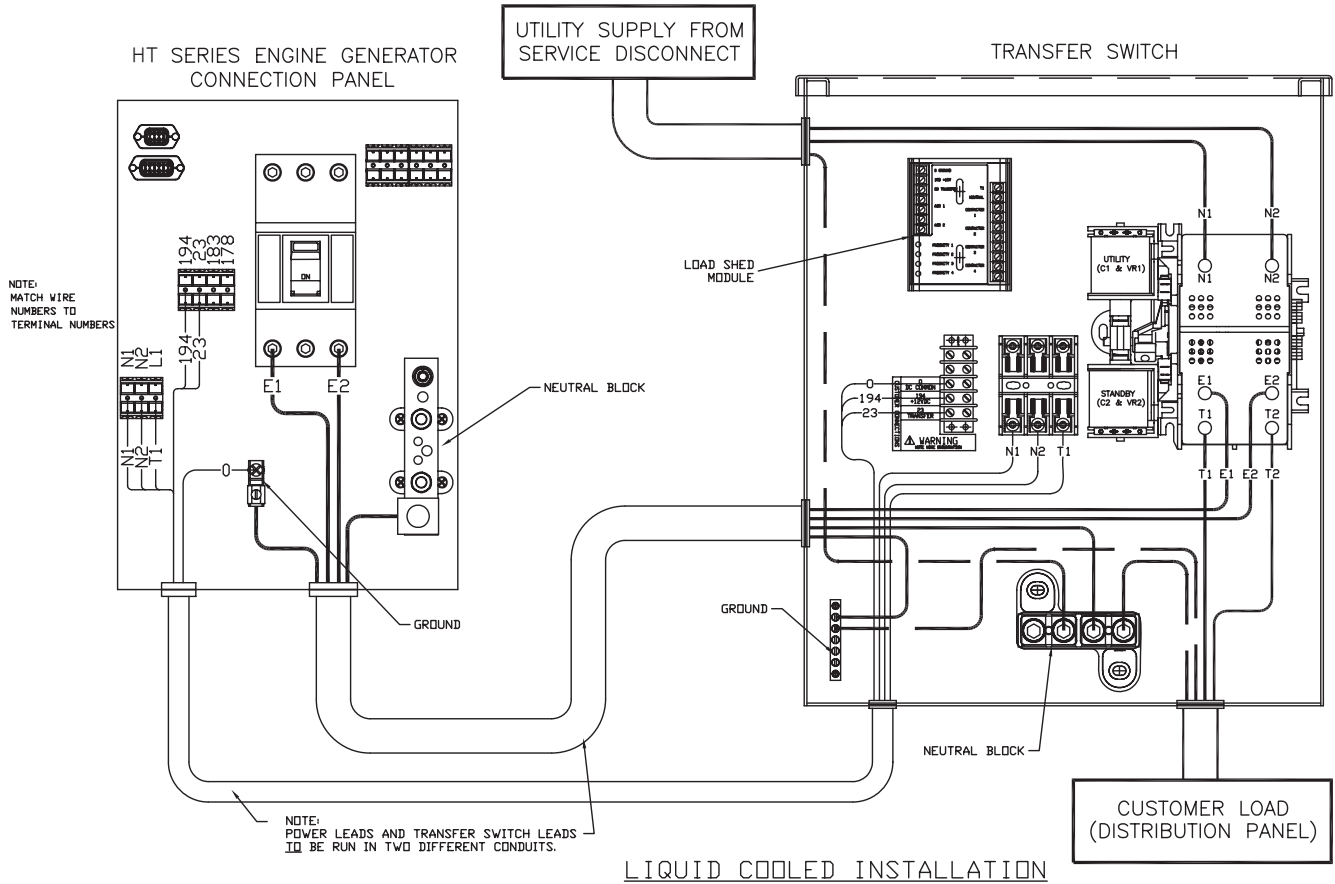
Refer to "Emissions Data Sheets" for maximum fuel flow for EPA and SCAQMD permitting purposes.

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.

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LIQUID-COOLED GENERATOR SETS

Interconnections

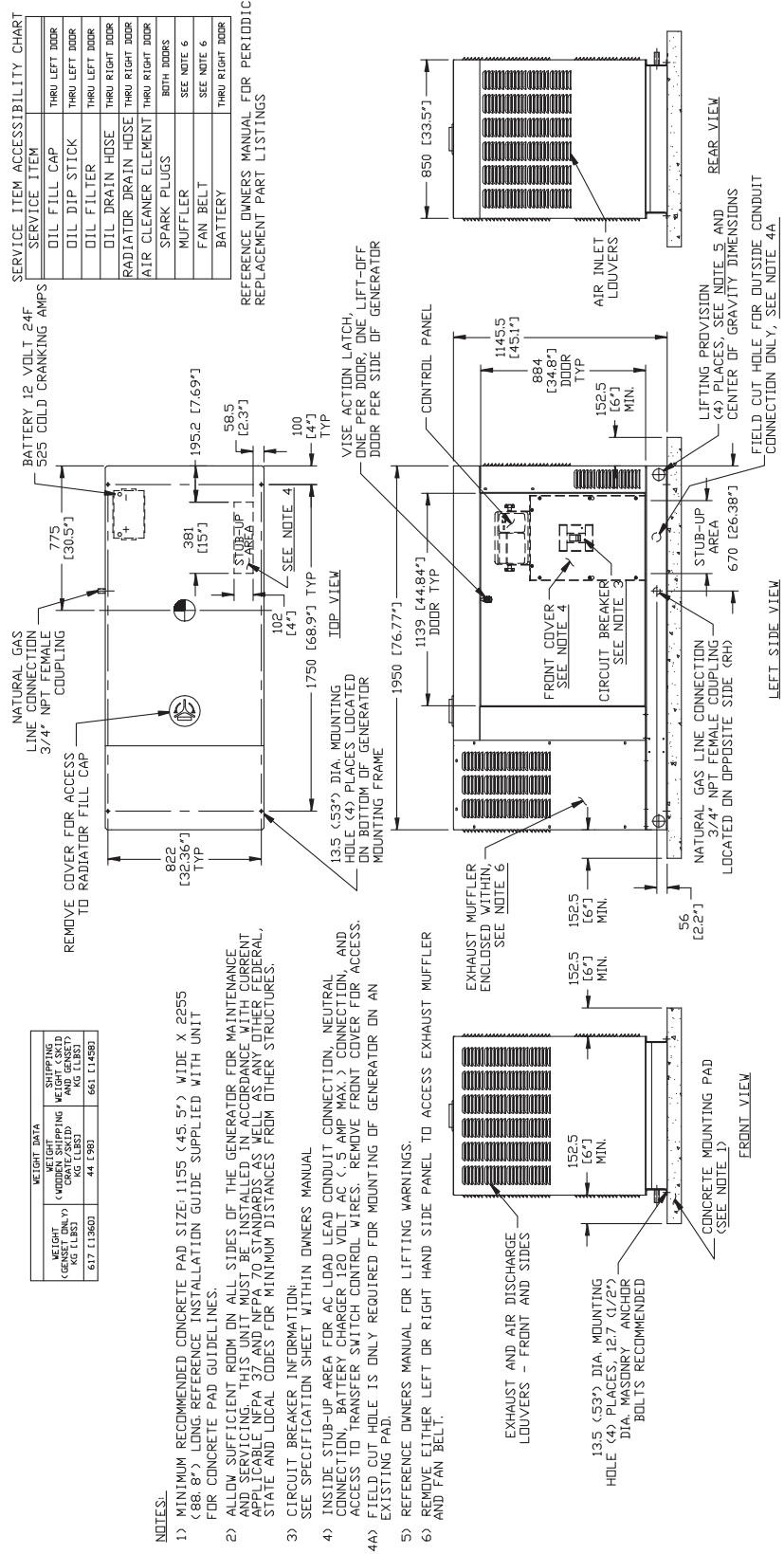


CONTROL FEATURES

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

REFERENCE OWNERS MANUAL FOR PERIODIC REPLACEMENT PART LISTINGS

WEIGHT DATA

WEIGHT (GROSS)	617 [11860]
WEIGHT (NET)	44 [989]
WEIGHT (SHIPPING AND GENSET)	661 [14893]

- 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 SERVICE. THIS UNIT MUST BE INSTALLED IN ACCORDANCE WITH FEDERAL, 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
5631	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.
5618	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
5656	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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