

## STANDBY GENERATOR

# 80 kW

### LIQUID-COOLED GENERATOR SET

Standby Power Rating

Model HT080 - 80 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
- EPA Emissions Compliant\*
- Natural Gas or LP Gas Operation
- 2 Year Limited Warranty
- UL 2200 Listed

\*Not for resale in CA/MA

## 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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## 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	Flexible Disc
• Load Capacity (Standby Rating)	80 kW
• Excitation System	Brushless

### ENGINE SPECIFICATIONS

• Make	Generac
• Model	V-type
• Cylinders	8
• Displacement	4.6 Liter
• Bore	3.55
• Stroke	3.54
• Compression Ratio	9.4:1
• 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	Electronic
• Sensing	Three 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 130 °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	Closed
• Water Pump	Belt driven
• Fan Speed	1600
• 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 <sub>2</sub> 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

<b>KW RATING (LP/NG)</b>		80/80	
<b>ENGINE SIZE</b>		4.6 Liter V-8	
<b>GENERATOR OUTPUT VOLTAGE/KW - 60Hz</b>	<b>kW LPG</b>	<b>AMP</b>	<b>CB Size</b>
120/240V, 1-phase, 1.0 pf	77	320	400
120/208V, 3-phase, 0.8 pf	80	278	300
120/240V, 3-phase, 0.8 pf	80	249	300
277/480V, 3-phase, 0.8 pf	80	120	150
<b>GENERATOR LOCKED ROTOR KVA AVAILABLE @ VOLTAGE DIP OF 35%</b>			
Single phase or 208-240 3-phase		160	
480V 3-phase		185	
<b>ENGINE FUEL CONSUMPTION (Natural Gas) (Propane)</b>	<b>Natural Gas</b> (ft <sup>3</sup> /hr.)	<b>Propane</b> (gal/hr.)	<b>cu ft/hr</b>
Exercise cycle	131	1.45	53
25% of rated load	312	3.45	126
50% of rated load	600	6.64	241
75% of rated load	835	9.25	336
100% of rated load*	1154	12.78	465
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.	5300	
System coolant capacity	US gal.	4.0	
Heat rejection to coolant	BTU/hr.	316,000	
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	250	
<b>SOUND EMISSIONS IN DBA</b>			
Exercising at 7 meters	64		
Normal operation at 7 meters	74		
<b>EXHAUST</b>			
Exhaust flow at rated output 60 Hz	cfm	720	
Exhaust temp. at muffler outlet	°C (°F)	449 (840)	
<b>ENGINE PARAMETERS</b>			
Rated synchronous RPM	60 Hz	3600	
<b>POWER ADJUSTMENT FOR AMBIENT CONDIIIONS</b>			
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	

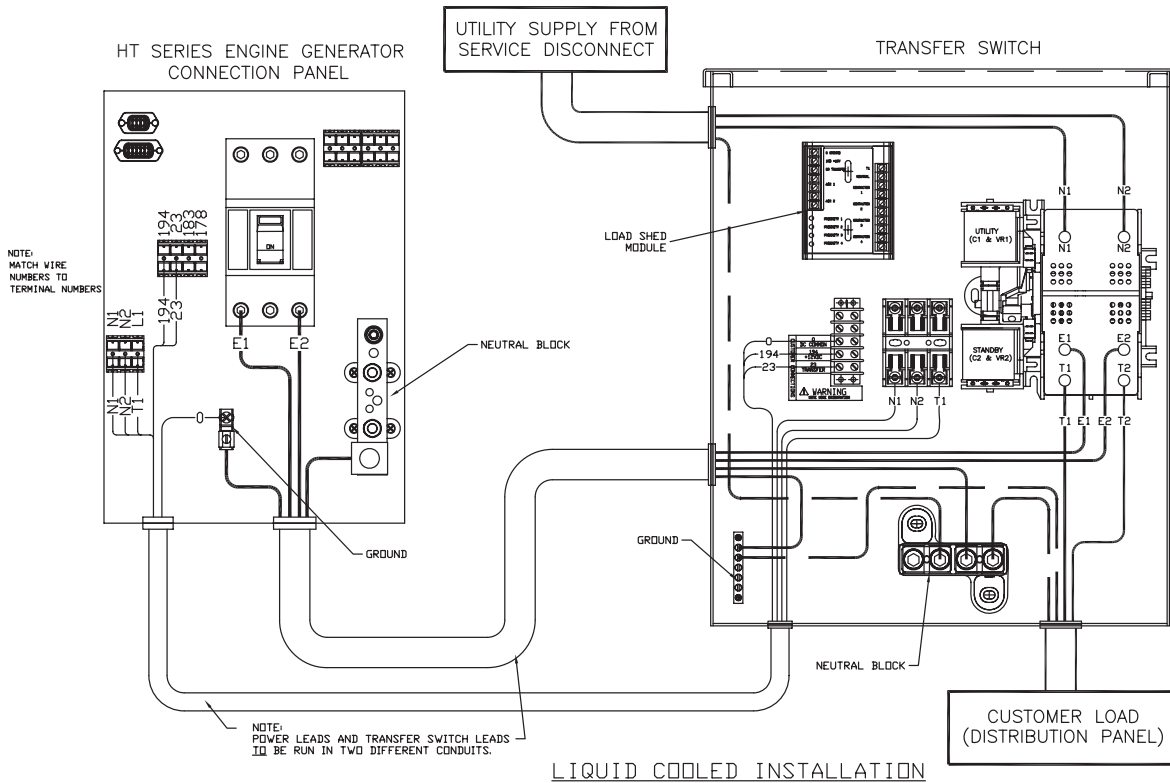
Refer to "Emissions Data Sheets" for maximum fuel flow for EPA and SCAQMD permitting purposes.

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



CIRCUIT BREAKER WIRE AND CONDUIT SIZE			
kW	VOLTS	CB AMPS	LUG SIZE
80	240 1 Ø	400	(1) 600 mcm to #4 or (2) 1/0 to 250 mcm to 1/0
80	240 3 Ø	300	(1) 600 mcm to #4 or (2) 1/0 to 250 mcm to 1/0
80	208 3 Ø	300	(1) 600 mcm to #4 or (2) 1/0 to 250 mcm to 1/0
80	480 3 Ø	150	#6 to 300 mcm

### 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</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"> <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 Protectio</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>
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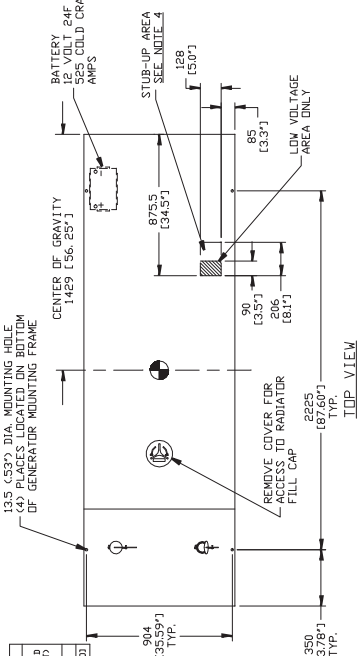
Single and three phase connections may vary, refer to the owner's manual for specific connection information.

# Installation Layout

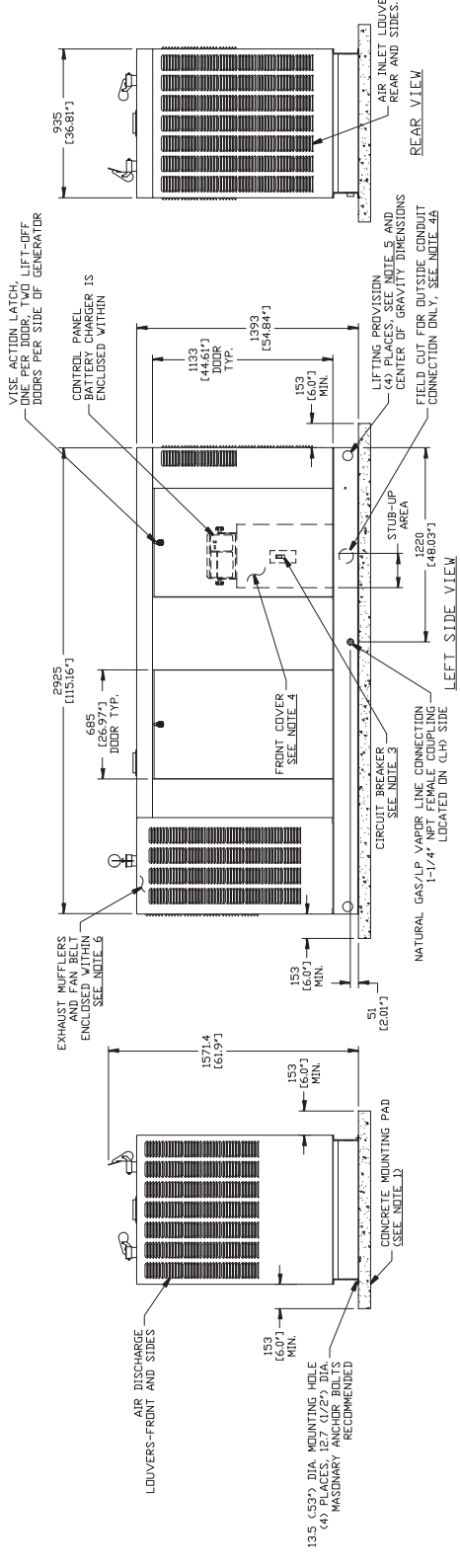
WEIGHT DATA		SHIPPING WEIGHT (GROSS)	
ENGINE/AM	ENCLOSURE MATERIAL	WEIGHT (GROSS) KG (LBS)	WEIGHT (GROSS) KG (LBS)
4. 6L/88K1	ALUMINUM	941 (2075)	1081 (2380)

SERVICE ITEM ACCESSIBILITY CHART		
SERVICE ITEM	4. 6L- P/N	4. 6L- P/N
OIL FILL CAP	20842AB	10804HA
OIL DRAIN HOSE	THRU LEFT DOOR	THRU LEFT DOOR
OIL DIP STICK	THRU LEFT DOOR	THRU LEFT DOOR
OIL FILTER	THRU LEFT DOOR	THRU LEFT DOOR
OIL DRAIN HOSE	THRU RIGHT DOOR	THRU LEFT DOOR
RADIATOR DRAIN HOSE	THRU LEFT DOOR	THRU LEFT DOOR
AIR CLEANER ELEMENT	ETHER DOOR	ETHER DOOR
SPARK PLUGS	BOTH DOORS	BOTH DOORS
MUFFLERS	SEE NOTE 6	SEE NOTE 6
FAN BELT	ETHER DOOR	ETHER DOOR
BATTERY	THRU RIGHT DOOR	THRU RIGHT DOOR



- NOTES:
- 1) MINIMUM RECOMMENDED CONCRETE PAD SIZE: 1941 (487") WIDE X 3931 (107.95") LONG. REFERENCE INSTALLATION GUIDE SUPPLIED WITH UNIT FOR CONCRETE PAD GUIDELINES.
  - 2) ALLOW SUFFICIENT ROOM ON ALL SIDES OF GENERATOR FOR MAINTENANCE AND SERVICING. THIS UNIT MUST BE INSTALLED IN ACCORDANCE WITH CURRENT APPLICABLE NFPA 70, NFPA 70 STANDARDS AND 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 (15 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.



- REFERENCE OWNERS MANUAL FOR PERIODIC REPLACEMENT PART LISTINGS

## 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.
5619	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
5985	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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