

**Standby Power Rating**

45 kW, 56 kVA, 50 Hz

**Prime Power Rating**

41 kW, 51 kVA, 50 Hz

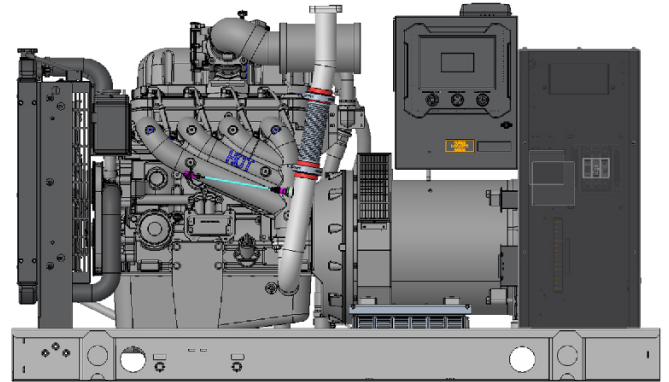


Image used for illustration purposes only

**Codes and Standards**

Generac products are designed to the following standards:



UL2200, UL6200, UL1236, UL489



CSA C22.2, ULC S601



BS5514 and DIN 6271



SAE J1349



NFPA 37, 70, 99, 110



NEC700, 701, 702, 708

**FEATURES**

Honny ensures superior quality by designing and manufacturing most of its generator components, such as alternators, enclosures, control systems and communications software. Honny also makes its own spark-ignited engines, and you'll find them on every Honny gaseous-fueled generator. We engineer and manufacture them from the block up — all at our facilities throughout China. Applying natural gas and LP-fueled engines to generators requires advanced engineering expertise to ensure reliability, durability and necessary performance. By designing specifically for these dry, hotter-burning fuels, the engines last longer and require less maintenance. Building our own engines also means we control every step of the supply chain and delivery process, so you benefit from single-source responsibility.

Plus, Honny Company Limited's distribution network provides all parts and service so you don't have to deal with third-party suppliers. It all leads to a positive owner experience and higher confidence level. Honny spark-ignited engines give you more options in commercial and industrial generator applications as well as extended run time from utility-supplied natural gas.

STANDARD FEATURES

ENGINE SYSTEM

- Oil Drain Extension
- Air Cleaner
- Fan Guard
- Stainless Steel Flexible Exhaust Connection
- Factory Filled Oil and Coolant
- Radiator Duct Adapter (Open Set Only)
- Critical Silencer/Catalyst

Fuel System

- Fuel Connection on Frame
- Primary and Secondary Fuel Shutoff

Cooling System

- Closed Coolant Recovery System
- Resistant Hoses
- Factory-Installed Radiator
- 50/50 Ethylene Glycol Antifreeze
- Radiator Drain Extension

Electrical System

- Battery Charging Alternator
- Battery Cables
- Battery Tray
- Rubber-Booted Engine Electrical Connections
- Solenoid Activated Starter Motor

ALTERNATOR SYSTEM

- Main Line Circuit Breaker
- Fault Protector
- Class H Insulation Material
- 2/3 Pitch
- Skewed Stator
- Brushless Excitation
- Sealed Bearings
- Amortisseur Winding
- Full Load Capacity Alternator

GENERATOR SET

- Internal Genset Vibration Isolation
- Separation of Circuits - High/Low Voltage
- Separation of Circuits - Multiple Breakers
- Wrapped Exhaust Piping
- Standard Factory Testing
- 2 Year Limited Warranty (Standby Rated Units)
- Silencer Mounted in the Discharge Hood (Enclosed Units Only)
- Ready to Accept Full Load in <10 Seconds

ENCLOSURE (If Selected)

- Rust-Proof Fasteners with Nylon Washers to Protect Finish
- High Performance Sound-Absorbing Material (Sound Attenuated Enclosures)
- Gasketed Doors
- Stamped Air-Intake Louvers
- Upward Facing Discharge Hood (Radiator and Exhaust)
- Stainless Steel Lift Off Door Hinges
- Stainless Steel Lockable Handles
- Textured Polyester Powder Coat

CONTROL SYSTEM



Digital Control Panel  
UK-DSE

Program Functions

- Programmable Crank Limiter
- Programmable Exerciser
- Programmable Logic Controller
- RS-232/485 Communications
- All Phase Sensing Digital Voltage Regulator
- 2-Wire Start Capability

- Date/Time Fault History (Event Log)
- Isochronous Governor Control
- Waterproof/Sealed Connectors
- Audible Alarms and Shutdowns
- Not in Auto (Flashing Light)
- Auto/Off/Manual Switch
- E-Stop
- Programmable
- Customizable Alarms, Warnings, and Events
- Modbus® Protocol
- Predictive Maintenance Algorithm
- Sealed Boards
- Password Parameter Adjustment Protection
- Single Point Ground
- 16 Channel Remote Trending
- 0.2 Msec High Speed Remote Trending
- Alarm Information Automatically Annunciated on the Display

Full System Status Display

- Power Output (kW)
- Power Factor

- kW Hours, Total, and Last Run
- Real/Reactive/Apparent Power
- All Phase AC Voltage
- All Phase Currents
- Oil Pressure
- Coolant Temperature
- Coolant Level
- Engine Speed
- Battery Voltage
- Frequency

Alarms and Warnings

- Oil Pressure
- Coolant Temperature
- Coolant Level
- Low Fuel Pressure
- Engine Overspeed
- Battery Voltage
- Alarms and Warnings Time and Date Stamped
- Snap Shots of Key Operation Parameters During Alarms and Warnings
- Alarms and Warnings Spelled Out (No Alarm Codes)

PARALLELING CONTROLS (If Selected)

- Auto-Synchronization Process
- Isochronous Load Sharing
- Reverse Power Protection
- Maximum Power Protection
- Electrically Operated, Mechanically Held Paralleling Switch
- Sync Check System
- Independent On-Board Paralleling

- Optional Programmable Logic Full Auto Back-Up Controls
- Shunt Trip and Auxiliary Contact

## CONFIGURABLE OPTIONS

### ENGINE SYSTEM

- Engine Block Heater
- Oil Heater
- Air Filter Restriction Indicator
- Radiator Stone Guard (Open Set Only)
- Baseframe Cover/Rodent Guard
- Level 1 Fan and Belt Guards (Enclosed Units Only)
- Shipped Loose Critical Silencer (Open Set Only)

### FUEL SYSTEM

- Flexible Fuel Line

### ELECTRICAL SYSTEM

- Battery Charger
- Battery Wires

### ALTERNATOR SYSTEM

- Alternator Upsizing
- Anti-Condensation Heater
- Tropical Coating

### CIRCUIT BREAKER OPTIONS

- 2nd Main Line Circuit Breaker
- Shunt Trip and Auxiliary Contact
- Electronic Trip Breakers

### GENERATOR SET

- Demand Response Rating
- Extended Factory Testing (3-Phase Only)
- IBC Seismic Certification
- 12 Position Load Center

### WEATHER PROTECTED ENCLOSURE

- Weather Protected Enclosure
- Level 1 Sound Attenuated
- Level 2 Sound Attenuated
- Level 2 Sound Attenuated with Motorized Dampers
- Steel Enclosure
- Aluminum Enclosure
- Up to 200 MPH Wind Load Rating (Contact Factory for Availability)
- AC/DC Enclosure Lighting Kit
- Enclosure Heaters
- Door Open Alarm Switch

### CONTROL SYSTEM

- NFPA 110 Compliant Level 1 21-Light Remote Annunciator
- Remote Relay Assembly (8 or 16)
- Remote E-Stop (Break Glass-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type, Flush Mount)
- 10A Engine Run Relay
- Ground Fault Annunciator
- 100 dB Alarm Horn
- Damper Alarm Contacts (Motorized Dampers Only)
- 120V GFCI and 240V Outlets
- Auxiliary Circuit Breaker Contacts to Controller

### WARRANTY (Standby Gensets Only)

- 2 Year Extended Limited Warranty
- 5 Year Limited Warranty
- 5 Year Extended Limited Warranty
- 7 Year Extended Limited Warranty
- 10 Year Extended Limited Warranty

## ENGINEERED OPTIONS

### ENGINE SYSTEM

- Fluid Containment Pans

### CONTROL SYSTEM

- Battery Disconnect Switch

### ALTERNATOR SYSTEM

- 3rd Breaker System

### GENERATOR SET

- Special Testing
- Battery Box

APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

General

|                         |  |
|-------------------------|--|
| Make                    | Honny                                      |
| Cylinder #              | 4  |
| Type                    | In-Line                                    |
| Displacement - in3 (L)  | 275.0 (4.5)                                |
| Bore: in (mm)           | 4.5 (114.3)                                |
| Stroke: in (mm)         | 4.25 (107.95)                              |
| Compression Ratio       | 9.94:1                                     |
| Intake Air Method       | Naturally Aspirated                        |
| Number of Main Bearings | 5  |
| Connecting Rods         | Forged Steel, Fractured Split, Bushingless |
| Cylinder Head           | Cast Iron                                  |
| Cylinder Liners         | Cast Iron                                  |
| Ignition                | Coil Near Plug Solid State Inductive       |
| Piston Type             | Cast Aluminum Flat Top                     |
| Crankshaft Type         | Forged Steel                               |
| Lifter Type             | Hydraulic Roller                           |
| Intake Valve Material   | Stainless Steel                            |
| Exhaust Valve Material  | Stainless Steel                            |
| Hardened Valve Seats    | High Steel Iron Alloy                      |

Engine Governing

|                                     |            |
|-------------------------------------|------------|
| Governor                            | Electronic |
| Frequency Regulation (Steady State) | 0.25       |

Lubrication System

|                             |                             |
|-----------------------------|-----------------------------|
| Oil Pump                    | Gear Driven                 |
| Oil Filter Type             | Full Flow Spin-On Cartridge |
| Engine Oil Capacity: qt (L) | 21 (20)                     |

Cooling System

|                        |                    |
|------------------------|--------------------|
| Cooling System Type    | Pressurized Closed |
| Fan Type               | Pusher             |
| Fan Speed (rpm)        | 2,100              |
| Fan Diameter - in (mm) | 20 (508)           |

Fuel System

|  |                      |
|--|----------------------|
| Fuel Type  | Natural Gas, Propane |
| Fuel Injection   | Down Draft           |
| Fuel Shutoff   | Dual                 |
| G Operating Fuel Pressure - in H <sub>2</sub> O (kPa)  | 5 - 14 (1.2 - 3.5)   |
| LP Operating Fuel Pressure - in H <sub>2</sub> O (kPa) | 7 - 14 (1.7 - 3.5)   |

Engine Electrical System

|                            |                              |
|----------------------------|------------------------------|
| System Voltage             | 12 VDC                       |
| Battery Charger Alternator | Standard                     |
| Battery Size               | See Battery Index 0161970SBY |
| Battery Voltage            | 12 VDC                       |
| Ground Polarity            | Negative (-)                 |

ALTERNATOR SPECIFICATIONS

|                                     |             |
|-------------------------------------|-------------|
| Standard Model                      | K0080124Y12 |
| Poles                               | 4           |
| Field Type                          | Revolving   |
| Insulation Class — Rotor            | H           |
| Insulation Class — Stator           | H           |
| Total Harmonic Distortion (THD)     | <5%         |
| Telephone Interference Factor (TIF) | <50         |

|                                    |                          |
|------------------------------------|--------------------------|
| Standard Excitation                | Brushless Excitation     |
| Bearings                           | Sealed Ball              |
| Coupling                           | Direct via Flexible Disc |
| Prototype Short Circuit Test       | Yes                      |
| Voltage Regulator Type             | Full Digital             |
| Number of Sensed Phases            | All                      |
| Regulation Accuracy (Steady State) | ± 0.25%                  |

## OPERATING DATA

### POWER RATINGS NATURAL GAS/PROPANE VAPOR

|                                 | Standby/Demand Response |           | Prime        |           |
|---------------------------------|-------------------------|-----------|--------------|-----------|
| Single-Phase 120/240 VAC @1.0pf | 45 kW/45 kVA            | Amps: 188 | 41 kW/41 kVA | Amps: 169 |
| Three-Phase 120/208 VAC @0.8pf  | 45 kW/45 kVA            | Amps: 156 | 41 kW/41 kVA | Amps: 141 |
| Three-Phase 120/240 VAC @0.8pf  | 45 kW/45 kVA            | Amps: 135 | 41 kW/41 kVA | Amps: 122 |
| Three-Phase 277/480 VAC @0.8pf  | 45 kW/45 kVA            | Amps: 68  | 41 kW/41 kVA | Amps: 61  |

### STARTING CAPABILITIES (SKVA)

| sKVA vs. Voltage Dip |     |             |     |
|----------------------|-----|-------------|-----|
| 277/480 VAC          | 30% | 208/240 VAC | 30% |
| K0045124Y12          | 98  | K0080124Y12 | 75  |
| K0060124Y12          | 124 | K0100124Y12 | 95  |

### FUEL CONSUMPTION RATES\*

| Natural Gas – scfh (m3/hr) |                         |            | LP Vapor – scfh (m3/hr) |                         |           |
|----------------------------|-------------------------|------------|-------------------------|-------------------------|-----------|
| Percent Load               | Standby/Demand Response | Prime      | Percent Load            | Standby/Demand Response | Prime     |
| 25%                        | 195 (5.5)               | 201 (5.7)  | 25%                     | 102 (2.9)               | 105 (3.0) |
| 50%                        | 322 (9.1)               | 298 (8.4)  | 50%                     | 147 (4.2)               | 138 (3.9) |
| 75%                        | 427 (12.1)              | 394 (11.2) | 75%                     | 184 (5.2)               | 172 (4.9) |
| 100%                       | 554 (15.7)              | 495 (14.0) | 100%                    | 228 (6.5)               | 209 (5.9) |

\*Fuel supply installation must accommodate fuel consumption rates at 100% load.

### COOLING

|   | Standby/Demand Response     | Prime        |
|---|-----------------------------|--------------|
| Air Flow (Fan Air Flow Across Radiator) - Open Set    | scfm (m3/min)               | 3,511 (99.4) |
| Coolant Flow  | gal/min (L/min)             | 37.7 (142.7) |
| Coolant System Capacity                               | gal (L)                     | 3 (11.4)     |
| Maximum Operating Ambient Temperature                 | °F (°C)                     | 122 (50)     |
| Maximum Operating Ambient Temperature (Before Derate) | See Bulletin No. 0199270SSD |              |
| Maximum Radiator Backpressure                         | in H2O (kPa)                | 0.5 (0.12)   |

### COMBUSTION AIR REQUIREMENTS

|                                   | Standby/Demand Response | Prime      |
|-----------------------------------|-------------------------|------------|
| Flow at Rated Power scfm (m3/min) | 90.3 (2.6)              | 82.1 (2.3) |

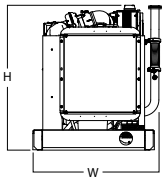
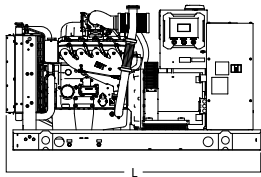
### ENGINE

|                          |                | Standby/Demand Response | Prime       |
|--------------------------|----------------|-------------------------|-------------|
| Rated Engine Speed: RPM  | rpm            | 1,500                   | 1,500       |
| Horsepower at Rated kW** | hp             | 69                      | 56          |
| Piston Speed             | ft/min (m/min) | 1,275 (389)             | 1,275 (389) |
| BMEP                     | psi (kPa)      | 113 (778)               | 90 (623)    |

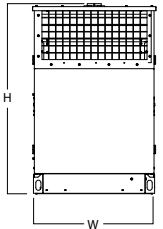
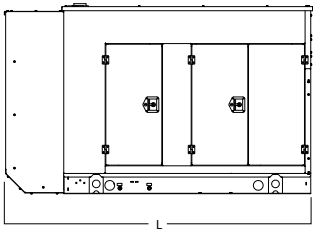
### EXHAUST

|   |               | Standby/Demand Response | Prime       |
|---|---------------|-------------------------|-------------|
| Exhaust Flow (Rated Output)                 | scfm (m3/min) | 255.3 (7.2)             | 236.1 (6.7) |
| Maximum Exhaust Back pressure               | in Hg (Kpa)   | 0.75 (2.54)             | 0.75 (2.54) |
| Exhaust Temp (Rated Output - Post Silencer) | °F (°C)       | 1,361 (738)             | 1,355 (735) |

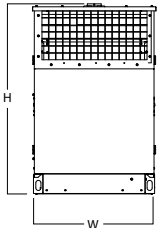
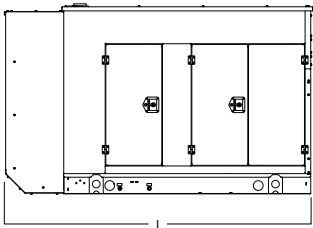
DIMENSIONS AND WEIGHTS\*



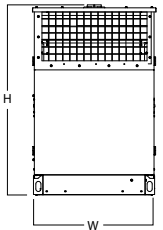
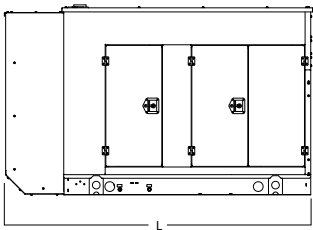
|                                  |  |  |
|----------------------------------|--|--|
| OPEN SET (Includes Exhaust Flex) |  |  |
| L x W x H - in (mm)              | 78.1 (1,984) x 37.3 (947) x 44.4 (1,128) |  |
| Weight lbs (kg)                  | 1,675 - 1,748 (760 - 793)                |  |



|                             |  |  |
|-----------------------------|--|--|
| WEATHER PROTECTED ENCLOSURE |  |  |
| L x W x H - in (mm)         | 94.8 (2,408) x 38.0 (965) x 57.5 (1,461) |  |
| Weight lbs (kg)             | Steel: 2,160 - 2,233 (980 - 1,013)       |  |
|                             | Aluminum: 1,894 - 1,965 (859 - 891)      |  |



|                            |  |  |
|----------------------------|--|--|
| LEVEL 1 ACOUSTIC ENCLOSURE |  |  |
| L x W x H - in (mm)        | 94.8 (2,408) x 38.0 (965) x 57.5 (1,461) |  |
| Weight lbs (kg)            | Steel: 2,258 - 2,329 (1,024 - 1,056)     |  |
|                            | Aluminum: 1,987 - 2,061 (901 - 935)      |  |



|                            |  |  |
|----------------------------|--|--|
| LEVEL 2 ACOUSTIC ENCLOSURE |  |  |
| L x W x H - in (mm)        | 94.8 (2,408) x 38.0 (965) x 57.5 (1,461) |  |
| Weight lbs (kg)            | Steel: 2,341 - 2,414 (1,062 - 1,095)     |  |
|                            | Aluminum: 2,071 - 2,144 (939 - 972)      |  |

\* All measurements are approximate and for estimation purposes only.

Specification characteristics may change without notice. Please consult [www.honny.com](http://www.honny.com) for detailed installation drawings.