

Standby Power Rating

400 kW, 500 kVA, 50 Hz

Demand Response Rating

400 kW, 500 kVA, 50 Hz

Prime Power Rating

360 kW, 450 kVA, 50 Hz

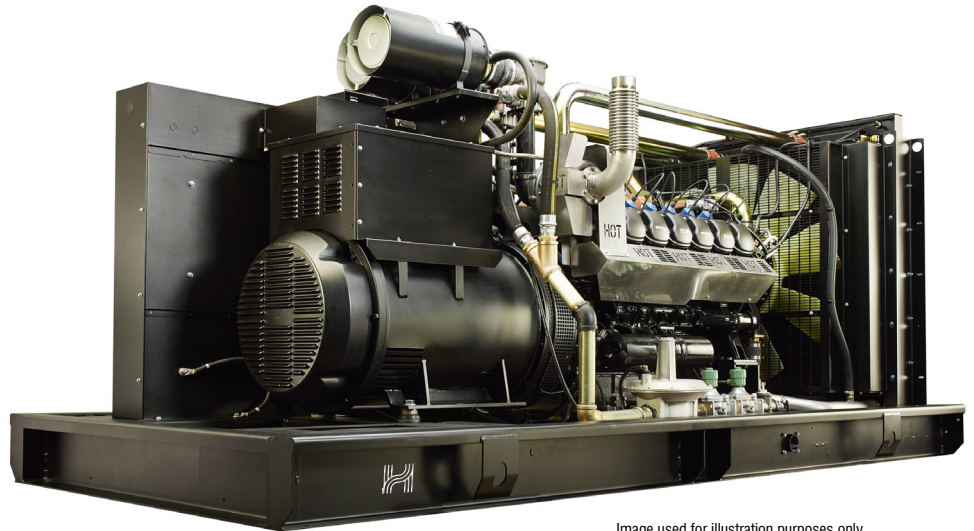


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Codes and Standards

Not all codes and standards apply to all configurations. Contact factory for details.



UL2200, UL6200, UL1236, UL489



CSA C22.2, B149



BS5514 and DIN 6271



SAE J1349



NFPA 37, 70, 99, 110



NEC700, 701, 702, 708



ISO 3046, 7637, 8528, 9001

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 #	12
Type	V12
Displacement - in ³ (L)	1,336.4 (21.9)
Bore - in (mm)	5.03 (128)
Stroke - in (mm)	5.60 (142)
Compression Ratio	10.0:1
Intake Air Method	Turbocharged/Aftercooled
Number of Main Bearings	7
Connecting Rods	Steel Alloy
Cylinder Head	Cast Iron
Cylinder Liners	Cast Steel Alloy
Ignition	Electronic
Piston Type	Cast Aluminum Alloy
Crankshaft Type	Steel
Lifter Type	Solid
Intake Valve Material	High Temp Steel Alloy
Exhaust Valve Material	High Temp Steel Alloy
Hardened Valve Seats	Proprietary Alloy
Engine Governing	
Governor	Electronic
Frequency Regulation (Steady State)	±0.25%
Lubrication System	
Oil Pump Type	Gear
Oil Filter Type	Full-Flow Spin-On Cartridge
Crankcase Capacity - qt (L)	31.7 (30)

Cooling System	
Cooling System Type	Pressurized Closed Recovery
Fan Type	Pusher
Fan Speed - RPM	1,404
Fan Diameter - in (mm)	44 (1,118)
Fuel System	
Fuel Type	Natural Gas
Carburetor	Down Draft
Secondary Fuel Regulator	Standard
Fuel Shut Off Solenoid	Standard
Operating Fuel Pressure - in H ₂ O (kPa)	11 - 14 (2.7 - 3.5)
Optional Operating Fuel Pressure - in H ₂ O (kPa)	7 - 11 (1.7 - 2.7)
Engine Electrical System	
System Voltage	24 VDC
Battery Charger Alternator	57 A
Battery Size	See Battery Index 0161970SBY
Battery Voltage	(2) - 12 VDC
Ground Polarity	Negative

ALTERNATOR SPECIFICATIONS

Standard Model	K0400124Y12	Standard Excitation	Brushless Excitation
Poles	4	Bearings	Sealed Ball
Field Type	Revolving	Coupling	Direct via Flexible Disc
Insulation Class - Rotor	H	Prototype Short Circuit Test	Yes
Insulation Class - Stator	H	Voltage Regulator Type	Full Digital
Total Harmonic Distortion	<5% (3-Phase)	Number of Sensed Phases	All
Telephone Interference Factor (TIF)	<52	Regulation Accuracy (Steady State)	±0.25%

OPERATING DATA

POWER RATINGS - NATURAL GAS

	Standby/Demand Response		Prime	
Three-Phase 277/480 VAC @0.8pf	400 kW/500 kVA	Amps: 602	360 kW/450 kVA	Amps: 542
Three-Phase 346/600 VAC @0.8pf	400 kW/500 kVA	Amps: 482	360 kW/450 kVA	Amps: 434

MOTOR STARTING CAPABILITIES (skVA)

skVA vs. Voltage Dip	
277/480 VAC	30%
K0400124Y12	953
K0500124Y32	1,020
K0600124Y32	1,560

FUEL CONSUMPTION RATES*

Natural Gas – scfh (m³/hr)		
Percent Load	Standby/Demand Response	Prime
25%	1,680 (47.6)	1,620 (45.9)
50%	2,640 (74.8)	2,460 (69.7)
75%	3,600 (101.9)	3,300 (93.4)
100%	4,620 (130.8)	4,200 (118.9)

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

COOLING

	Standby/Demand Response	Prime
Air Flow (Fan Air Flow Across Radiator)	scfm (m³/min)	28,004 (793)
Coolant Flow	gpm (Lpm)	211 (799)
Coolant System Capacity	gal (L)	15.5 (58.7)
Maximum Operating Ambient Temperature	°F (°C)	122 (50)
Maximum Operating Ambient Temperature (Before Derate)	See Bulletin No. 0199270SSD	
Maximum Radiator Backpressure	in H ₂ O (kPa)	0.5 (0.12)

COMBUSTION AIR REQUIREMENTS

	Standby/Demand Response	Prime
Flow at Rated Power scfm (m³/min)	731 (20.7)	666 (18.9)

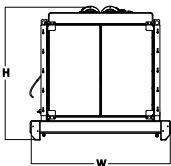
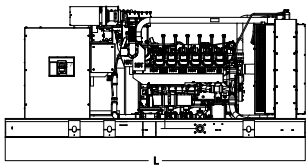
ENGINE

		Standby/Demand Response	Prime
Rated Engine Speed	RPM	1,500	1,500
Horsepower at Rated kW**	hp	589	530
Piston Speed	ft/min (m/min)	1,680 (512)	1,680 (512)
BMEP	psi (kPa)	194 (1,338)	175 (1,204)

EXHAUST

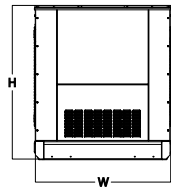
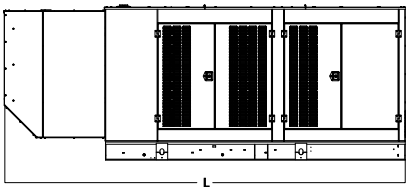
		Standby/Demand Response	Prime
Exhaust Flow (Rated Output)	scfm (m³/min)	2,378 (67.3)	2,142 (60.7)
Max. Backpressure (Post Silencer)	inHg (kPa)	0.75 (2.54)	0.75 (2.54)
Exhaust Temp (Rated Output - Post Silencer)	°F (°C)	1,297 (702.8)	1,277 (691.7)

DIMENSIONS AND WEIGHTS*



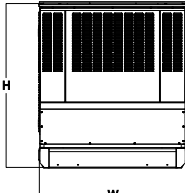
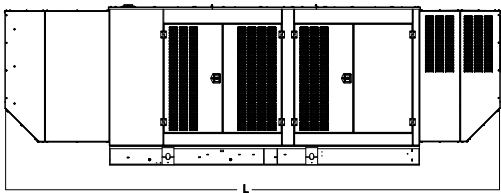
OPEN SET (Includes Exhaust Flex)

L x W x H - in (mm)	154.4 (3,922) x 71.0 (1,803) x 66.5 (1,689)
Weight - lbs (kg)	7,286 - 8,650 (3,304 - 3,923)



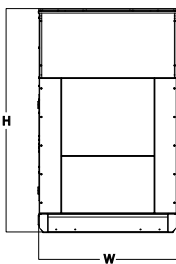
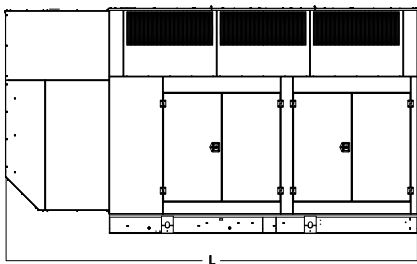
WEATHER PROTECTED ENCLOSURE

L x W x H - in (mm)	207.4 (5,268) x 71.0 (1,803) x 80.0 (2,032)
Weight - lbs (kg)	Steel: 9,490 - 10,840 (4,304 - 4,916) Aluminum: 8,404 - 9,753 (3,811 - 4,423)



LEVEL 1 SOUND ATTENUATED ENCLOSURE

L x W x H - in (mm)	247.5 (6,287) x 71.0 (1,803) x 80.0 (2,032)
Weight - lbs (kg)	Steel: 10,498 - 11,847 (4,761 - 5,373) Aluminum: 8,818 - 10,185 (3,999 - 4,619)



LEVEL 2 SOUND ATTENUATED ENCLOSURE

L x W x H - in (mm)	207.4 (5,268) x 71.0 (1,803) x 114.1 (2,898)
Weight - lbs (kg)	Steel: 10,836 - 12,185 (4,914 - 5,526) Aluminum: 8,963 - 10,330 (4,065 - 4,685)

LEVEL 3 SOUND ATTENUATED ENCLOSURE

L x W x H - in (mm)	232.0 (5,893) x 76.9 (1,953) x 129.2 (3,282)
Weight - lbs (kg)	13,224 - 14,285 (5,997 - 6,478)

* All measurements are approximate and for estimation purposes only.

Specification characteristics may change without notice. Dimensions and weights are for preliminary purposes only. Please consult www.honny.com for detailed installation drawings.