

# Home Standby Generators Air-Cooled Gas Engine

## HSB SERIES GAZ-15 LPG(Liquid propane gas) NG(Natural Gas) Dual Fuel Generators



### Features and benefits

■ INNOVATIVE DESIGN AND TESTING

Designed for easy installation with attractive, Compact structure and reliable performance. Commitment to component testing, reliability testing, environmental testing, destruction and life testing. With the weather tool kit help, unit can run at the ambient temp of -28.9°C(-20°F).

■ FLEXIBLE INSTALLATION LOCATION

Protection agency standards, Panda standby generators can be placed as close as 20'' from the home, providing more placement options in your yard-perfect for tight lot lines..

■ DURABLE OUTDOOR CANOPY

Appealing enclosure incorporates special designs That deliver one of the quietest generators of its kind. Steel material plus durable powder coat paint provides the best anti-corrosion performance.

■ HIGH COST-EFFECTIVE

Offers an extreme value for those who desire automatic backup power at the most affordable price.

■ ELECTRONIC SPEED GOVERNING SYSTEM

Advance speed regulation system, provide the Maximum engine power output, quickly response for the changing loads.

■ CERTIFICATIONS

Meets emission regulations for U.S. Environmental Protection Agency (EPA) phase 3, meets UL2200 standard.

■ WARRANTY

1 year /500 hours limited warranty

■ PACKING

Makes for an easy and reliable transportation and installation

■ INSTALL AND USE

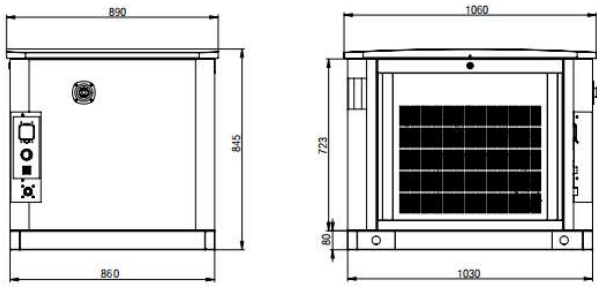
Generator without installation, portable ATS mode, users just plug socket can be used.

### Weight, size and sound level

**Weight:** 303kg

**Size:** 890mm×1060mm×845mm

**Sound:** 68 dB(A) at 23 ft (7 m)



Model	Phase	Voltage (V)	Frequency (Hz)	Rated amps * (NG/LPG Fuel)	Circuit Breaker (Amps)
GAZ-15	1	220	50	59/68	68
	3	220/380	50	25/27	27

\*Derating guidelines: Engine power available up to 1005m (3300 ft) at ambient temperatures up to 40 °C (104 °F). Above these elevations derate at 4% per 305m (1000 ft) and 2% per 10 °C above 40 °C (104 °F)。

# Home Standby Generators

## Air-Cooled Gas Engine

### GENERATOR SPECIFICATIONS

Rated Power (NG/LPG)	12KW/14KW
Max Power (NG/LPG)	13KW/15KW
Rated Voltage (V)	220/380
Rated Frequency (Hz)	50
Rated Speed (rpm)	3000
Phase	Single phase / three phase
Power Factor	1.0/0.8

### ENGINE SPECIFICATIONS

Manufacturer/Model	Javac
Engine Type	V-twin cylinder,4stroke, OHV
Displacement	0.999 liters
Bore	90 mm
Stroke	78.5 mm
Compression Ratio	8.9:1
Ignition system	Magneto ignition
Intake Air System	Naturally Aspirated
Starter motor rated voltage	DC 12V/0.8KW Electrical start
Battery charging Coil	DC 14V/2A
Oil capacity	3.1 liters
Air cleaner type	Dry
Recommended cold cranking amps: (CCA) rating for -18°C (0°F)	450

### GENERATOR SET PERFORMANCE

Governor regulation class	ISO 8528 Part 1 Class G2
Governor type	Electronic
Voltage regulation	±5.0%
Random voltage variation	±1.0%
Frequency regulation	Isochronous
Frequency regulation, steady state	± 0.5% @ 60 Hz

### SOUND EMISSIONS

Sound output in dB(A) at 23 ft (7 m) with generator in exercise mode *	65
Sound output in dB(A) at 23 ft (7 m) with generator at normal operation *	68

\*Sound levels are taken from the front of the generator. Sound levels taken From other sides of the generator may be higher depending on installation parameters.

### ALTERNATOR SPECIFICATIONS

Rated Power	15KW
Alternator Type	Synchronous, revolving field
Pole	2 pole
Rotor Insulation Class	F
Stator Insulation Class	F
Protection Level	IP23
Winding Material	Copper
Sea level	≤1000m
Coupling	Direct coupling

### ENGINE COOLING SYSTEM

Cooling system	Air cooled
Radiator Fan	Φ 400×2 electronic fan

### FUEL SYSTEM

Fuel Type	Natural Gas or LPG
Fuel supply pressure, kPa (in. H <sub>2</sub> O):	NG: 1.2--2.7 (5-11)
	LPG: 1.7--2.7 (7-11)
Fuel pipe Size	G 1/2 pipe
Fuel Pipe Length	<10m
Fuel consumption @50% (NG)	4.7m³/h
Fuel consumption @100%(NG)	7.3m³/h
Fuel consumption @50%(LPG)	1.8m³/h
Fuel consumption@100%(LPG)	2.9m³/h

Nominal fuel rating: Natural gas: 37 MJ/m³(1000 Btu/ft³)

LPG: 93 MJ/m³(2500 Btu/ ft³)

LPG conversion factors: 8.58 ft³ = 1 lb.

0.535 m³ = 1 kg    36.39 ft³ = 1 gal.

### UNIT DIMENSIONS AND WEIGHTS

Unit Weight    kg	303
Gross Weight    kg	328
Unit Size (mm)	860×1060×825
Packing size (mm)	910×1110×945
Packing	Carton +Metal Crate
20/40 Container Loading	20/48

NOTE: Dimensions are provided for reference only and should not be used for planning installation.

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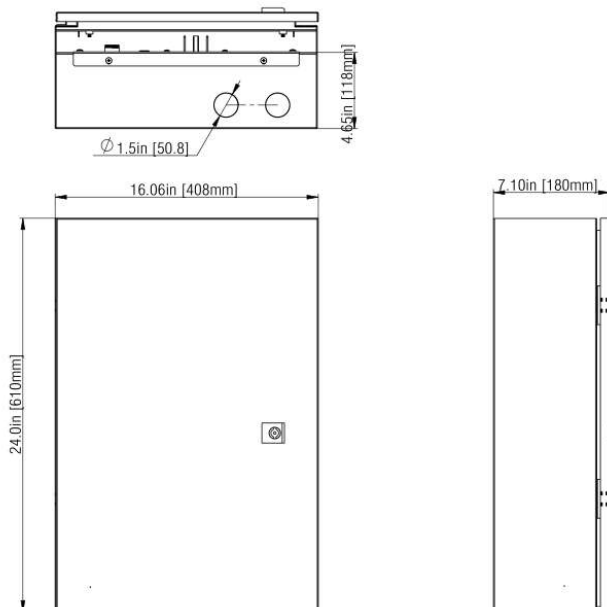
### CONTROLLER FEATURES

- LCD display, easy to operate
- System voltage/ frequency selection and engine configuration
- Maintain steady-state speed(stepping alternator);
- High engine temperature
- Low oil pressure
- Overspeed/underspeed
- Crank cycle status
- Overvoltage/undervoltage
- Charging Fail



### AUTOMATIC TRANSFER SWITCH

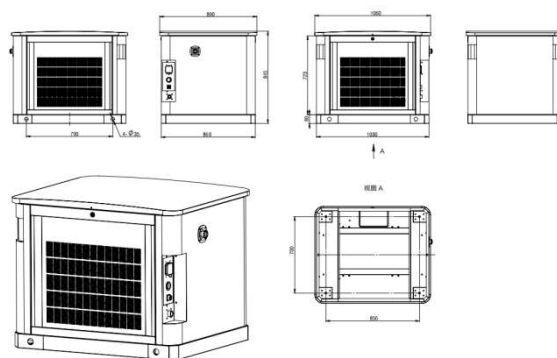
Pole	2
Rated Current	100A
Rated Volt	250VAC
Max Volt	300VAC
ATS Making Volt	170V
ATS Breaking Volt	150V
Withstand Rating	5000A
Dimension mm	610×408×180
Operating temp	-20°C to 70°C
Storage temp	-40°Cto 85°C
Weight kg	19.35kg



### ATS CONNECTING CABLES



### BASIC DIMENSIONS



**Note:** This outline drawing is provided for general reference only and is Not intended for use in design or installation. For more information, see Operators and Installation manuals or contact your distributor or dealer for assistance.

### DIY Home Generator Installation (Optional accessories)

- AGM Spiralcell Battery
- Automatic Transfer Switch - 100 Amp
- Gas Quick Connectors Kit
- Grounding
- Mobile Link
- Generator Wheel Kit
- Hurricane-Secure Generator Pads
- Mobile lifting system
- Cold Weather Kit(Battery Heater,Oil Heater,Oil filter heater)
- Preventive Maintenance Kit (Air Filter, Oil Filter, Oil)