

## Standby Generator Liquid -Cooled Gas Engine

# SENECA

## SENTRY V

### ADVANCE SERIES PD20REG-DB LPG/Natural Gas STEEL/GRAY



### 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 -29.9°C (-20°F).

#### ■ Low Noise Level

Quiet operation, critical grade muffler is mounted inside the unit to lower noise and prevent injuries.

#### ■ Lubrication System

High-performance oil pump and large capacity oil pan provides long engine life.

#### ■ Weight, Size & Sound

Weight: 772lbs (350kg)  
Size: 54.17"x31.89"x37.8"  
Sound: 72dB(A) at 7m

#### ■ Radiator System

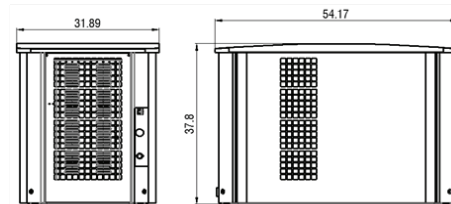
Liquid cooled system with large capacity radiator ensures superior working performance, and continuous operating above 100hrs at the ambient temp of 50°C (122°F).

#### ■ Emissions

Meets emission regulations for U.S. Environmental Protection Agency (EPA) phase3, meets UL2200 standard. Compliance with cETL.

#### ■ Packaging

Makes for easy and reliable transportation and installation.



Model	Phase	Voltage (V)	Frequency (Hz)	Rated amps * (NG/LPG Fuel)	Circuit Breaker (Amps)
PD20REGDB	1	120/240	60	75.0/83.3	84
	3	120/208	60	62.5/69.5	70

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

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## GENERATOR SPECIFICATIONS

Rated Power (NG/LPG)	Single	18KW/20KW
	Three	22.5KVA/25KVA
Max Power( NG/LPG)	Single	19.8KW/22KW
	Three	24.7KVA/27.5KVA
Power Factor	Single	1.0
	Three	0.8
Rated Frequency (Hz)	60	
Rated Speed (rpm)	3600	

## ENGINE SPECIFICATIONS

Manufacturer /Model	Seneca SentryV
Engine Type	4 Cylinders, 4 Stokes
Displacement	0.998 Liters (60.9 in) <sup>3</sup>
Bore	65.5 mm(2.52 in)
Stroke	74 mm(2.91 in)
Compression Ratio	9.5:1
Ignition system	ECM
Intake Air System	Naturally Aspirated
Starter motor rated voltage	DC 12V/0.8KW Electrical start
Battery charging alternator	DC 14V/70A
Oil capacity	4.0 liters(244.1 in) <sup>3</sup>
Air cleaner type	Dry
Recommended cold cranking amps: (CCA) rating for -18°C (0°F)	550

## GENERATOR SET PERFORMANCE

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

## SOUND EMISSIONS

Sound output in dB(A) at 23 ft (7 m) with Generator in exercise mode*	64
Sound output in dB(A) at 23 ft (7 m) with Generator at normalOperation*	72

\*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	20KW
Alternator Type	Synchronous, revolving field
Pole	2 pole
Rotor Insulation Class	F
Stator Insulation Class	F
Protection Level	IP23
Winding Material	Copper
Sea level	≤3280ft
Coupling	Direct coupling

## ENGINE COOLING SYSTEM

Cooling system	Closed Liquid Cooled
Coolant Capacity	5L
Coolant Temp Range	-25°C ~106°C
Radiator Fan	7 BladeØ 380

## FUEL SYSTEM

Fuel Type	Natural Gas or LPG
Fuel supply pressure, kPa (in.H <sub>2</sub> O):	NG: 1.2—3.5 (5-14)
	LPG: 1.7—3.5 (7-14)
Fuel pipe Size	G 3/4pipe
Fuel Pipe Length	<33ft
Fuel consumption @ 50%(NG)	178ft <sup>3</sup> /h
Fuel consumption @ 100%(NG)	286ft <sup>3</sup> /h
Fuel consumption @ 50%(LPG)	92.6ft <sup>3</sup> /h
Fuel consumption@ 100%(LPG)	147ft <sup>3</sup> /h

Nominal fuel rating: Natural gas: 37 MJ/m<sup>3</sup>(1000 Btu/ft<sup>3</sup>)

LPG: 93MJ/m<sup>3</sup>(2500 Btu/ft<sup>3</sup>)

LPG conversion factors: 8.58 ft<sup>3</sup>= 1 lb.

0.535 m<sup>3</sup>= 1 kg 36.39 ft<sup>3</sup>= 1 gal.

## UNIT DIMENSIONS AND WEIGHTS

Unit Weight (lbs)	772
Gross Weight (lbs)	849
Unit Size (in)	54.17×31.89×37.8
Packing size(in)	57.87×35.4×43.3
Packing	Carton+Metal Crate
20/40Container Loading	14/30

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

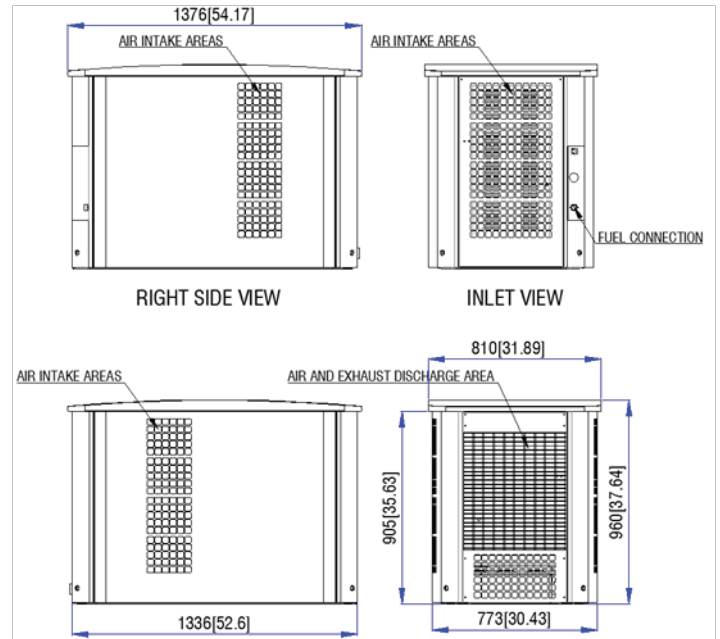
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### CONTROLLER FEATURES

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



### 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.

### ACCESSORIES INCLUDED

- Includes Automatic Transfer Switch
- Battery Charger

### AVAILABLE ACCESSORIES

- Battery Heater
- Oil Heater
- Battery

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