

SD200 | 8.7L | 200 kW
INDUSTRIAL DIESEL GENERATOR SET
EPA Certified Stationary Emergency

**GENERAC[®] INDUSTRIAL
ENERGY**

Standby Power Rating
200 kW, 250 kVA, 60 Hz

Prime Power Rating*
180 kW, 225 kVA, 60 Hz



*Assembled in the USA using domestic and foreign parts

*EPA Certified Prime ratings are not available in the US or its Territories.

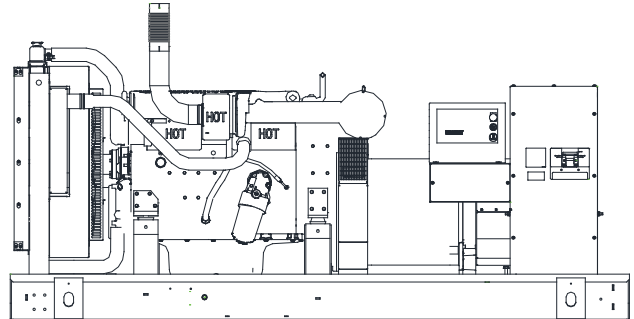


Image used for illustration purposes only

Codes and Standards

Generac products are designed to the following standards:



UL2200, UL6200, UL1236, UL489,
UL142



CSA C22.2, ULC S601, 1-1/4



BS5514 and DIN 6271



SAE J1349



NFPA 37, 70, 99, 110



NEC700, 701, 702, 708



NEMA ICS10, MG1, 250, ICS6,
AB1



ANSI C62.41



IBC 2009, CBC 2010, IBC 2012,
ASCE 7-05, ASCE 7-10, ICC-ES
AC-156 (2012)

Powering Ahead

For over 60 years, Generac has provided innovative design and superior manufacturing.

Generac provides superior quality by designing and manufacturing most of its generator components, including alternators, enclosures and base tanks, control systems and communications software.

Generac gensets utilize a wide variety of options, configurations and arrangements, allowing us to meet the standby power needs of practically every application.

Generac searched globally for the most reliable engines to power our generators. We choose only engines that have already been proven in heavy-duty industrial applications under adverse conditions.

Generac is committed to ensuring our customers' service support continues after their generator purchase.

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STANDARD FEATURES

ENGINE SYSTEM

- Oil Drain Extension
- Air Cleaner
- Stainless Steel Flexible Exhaust Connection
- Factory Filled Oil
- Radiator Duct Adapter (Open Set Only)
- Critical Silencer (Enclosed Only)

FUEL SYSTEM

- Fuel Lockoff Solenoid
- Primary Fuel Filter

COOLING SYSTEM

- Closed Coolant Recovery System
- UV/Ozone Resistant Hoses
- Factory-Installed Radiator
- Radiator Drain Extension
- 50/50 Ethylene Glycol Antifreeze
- 120 VAC Coolant Heater

ELECTRICAL SYSTEM

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

ALTERNATOR SYSTEM

- GENprotect™
- 12 Leads (3-Phase, Non 600V)
- Class H Insulation Material
- Vented Rotor
- 2/3 Pitch
- Skewed Stator
- Auxiliary Voltage Regulator Power Winding
- Permanent Magnet Excitation
- Sealed Bearings
- Automated Manufacturing (Winding, Insertion, Lacing, Varnishing)
- Rotor Dynamically Spin Balanced
- Amortisseur Winding
- Full Load Capacity Alternator
- Protective Thermal Switch

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 Extended Limited Warranty (Standby Rated Units)
- 1 Year Extended Limited Warranty (Prime Rated Units)
- Silencer Mounted in the Discharge Hood (Enclosed Only)

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 Hoods (Radiator and Exhaust)
- Stainless Steel Lift Off Door Hinges
- Stainless Steel Lockable Handles
- RhinoCoat™ - Textured Polyester Powder Coat Paint

TANKS (IF SELECTED)

- UL 142
- Double Wall
- Vents
- Sloped Top
- Sloped Bottom
- Factory Pressure Tested - 2 psi
- Rupture Basin Alarm
- Fuel Level
- Check Valve In Supply and Return Lines
- RhinoCoat™ - Textured Polyester Powder Coat Paint
- Stainless Steel Hardware

CONTROL SYSTEM



Digital H Control Panel- Dual 4x20 Display

Program Functions

- Programmable Crank Limiter
- 7-Day Programmable Exerciser
- Special Applications 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 (Red Mushroom-Type)
- NFPA110 Level I and II (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
- 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)

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CONFIGURABLE OPTIONS

ENGINE SYSTEM

- o Oil Make-Up System
- o Oil Heater
- o Industrial Exhaust Silencer (Open Set Only)

FUEL SYSTEM

- o Flexible Fuel Lines
- o Primary Fuel Filter

ELECTRICAL SYSTEM

- o 10A UL Battery Charger
- o 2.5 A Battery Charger
- o Battery Warmer

ALTERNATOR SYSTEM

- o Alternator Upsizing
- o Anti-Condensation Heater
- o Tropical Coating

CIRCUIT BREAKER OPTIONS

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

GENERATOR SET

- o Gen-Link Communications Software (English Only)
- o Extended Factory Testing
- o IBC Seismic Certification
- o 12 Position Load Center

ENCLOSURE

- o Standard Enclosure
- o Level 1 Sound Attenuation
- o Level 2 Sound Attenuation
- o Level 2 Sound Attenuation with Motorized Dampers
- o Steel Enclosure
- o Aluminum Enclosure
- o Up to 200 MPH Wind Load Rating (Contact Factory for Availability)
- o AC/DC Enclosure Lighting Kit

TANKS (Sizes On Last Page)

- o Electric Fuel Level
- o Mechanical Fuel Level
- o 8 in (203.2 mm) Fill Extension
- o 13 in (330.2 mm) Fill Extension
- o 19 in (482.2 mm) Fill Extension

CONTROL SYSTEM

- o 21-Light Remote Annunciator
- o Remote Relay Assembly (8 or 16)
- o Oil Temperature Sender with Indication Alarm
- o Remote E-Stop (Break Glass-Type, Surface Mount)
- o Remote E-Stop (Red Mushroom-Type, Surface Mount)
- o Remote E-Stop (Red Mushroom-Type, Flush Mount)
- o 10A Engine Run Relay
- o Ground Fault Indication and Protection Functions

WARRANTY (Standby Gensets Only)

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

ENGINEERED OPTIONS

ENGINE SYSTEM

- o Coolant Heater Ball Valves
- o Fluid Containment Pans
- o Block Heater

CONTROL SYSTEM

- o Spare Inputs (x4)/Outputs (x4)
- o Battery Disconnect Switch

ALTERNATOR SYSTEM

- o 3rd Breaker System

GENERATOR SET

- o Special Testing

ENCLOSURE

- o Door Switch for Intrusion Alarm
- o Enclosure Ambient Heaters

TANKS

- o Overfill Protection Valve
- o UL2085 Tank
- o ULC S-601 Tank
- o Special Fuel Tanks
- o Vent Extensions

APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

General

Make	Iveco/FPT
EPA Emissions Compliance	Stationary Emergency
EPA Emissions Reference	See Emission Data Sheet
Cylinder #	6
Type	In-line
Displacement - L (in ³)	8.7 (530.91)
Bore - mm (in)	117 (4.61)
Stroke - mm (in)	135 (5.31)
Compression Ratio	16.5:1
Intake Air Method	Turbocharged/Aftercooled
Cylinder Head	4-Valve
Piston Type	Aluminum
Crankshaft Type	Dropped Forged Steel

Engine Governing

Governor	Electronic Isochronous
Frequency Regulation (Steady State)	±0.25%

Lubrication System

Oil Pump Type	Gear
Oil Filter Type	Full-Flow
Crankcase Oil Capacity - L(qts)	28.0 (29.6)

Cooling System

Cooling System Type	Closed
Water Pump Type	Pre-Lubed, Self Sealing
Fan Type	Pusher
Fan Speed - RPM	2,538
Fan Diameter - mm (in)	762 (30)

Fuel System

Fuel Type	Ultra Low Sulfur Diesel Fuel #2
Fuel Specifications	ASTM
Fuel Filtering (Microns)	5
Fuel Inject Pump Make	Electronic
Fuel Pump Type	Engine Driven Gear
Injector Type	Common Rail
Engine Type	Direct Injection
Fuel Supply Line - mm (in)	12.7 (0.5) NPT
Fuel Return Line - mm (in)	12.7 (0.5) NPT

Engine Electrical System

System Voltage	24 VDC
Battery Charger Alternator	Standard
Battery Size	See Battery Index 0161970SBY
Battery Voltage	(2) -12 VDC
Ground Polarity	Negative

ALTERNATOR SPECIFICATIONS

Standard Model	Generac 520 mm
Poles	4
Field Type	Revolving
Insulation Class - Rotor	H
Insulation Class - Stator	H
Total Harmonic Distortion	<5% (3-Phase)
Telephone Interference Factor (TIF)	<50

Standard Excitation	Permanent Magnet Excitation
Bearings	Single Sealed Cartridge
Coupling	Direct via Flexible Disc
Prototype Short Circuit Test	Yes
Voltage Regulator Type	Digital
Number of Sensed Phases	All
Regulation Accuracy (Steady State)	±0.25%

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OPERATING DATA

POWER RATINGS - DIESEL

Standby		
Three-Phase 120/208 VAC @0.8p	200 kW	Amps: 833
Three-Phase 120/208 VAC @0.8pf	200 kW	Amps: 694
Three-Phase 120/240 VAC @0.8pf	200 kW	Amps: 601
Three-Phase 277/480 VAC @0.8pf	200 kW	Amps: 301
Three-Phase 346/600 VAC @0.8pf	200 kW	Amps: 241

MOTOR STARTING CAPABILITIES (SKVA)

skVA vs. Voltage Dip															
277/480 VAC								208/240 VAC							
Alternator	kW	10%	15%	20%	25%	30%	35%	Alternator	kW	10%	15%	20%	25%	30%	35%
Standard	200	187	280	373	467	560	653	Standard	200	140	210	280	350	420	490
Upsize 1	300	303	454	605	757	908	1,059	Upsize 1	300	277	277	454	568	681	794
Upsize 2	350	383	575	767	958	1,150	1,342	Upsize 2	350	280	410	535	640	770	900

FUEL CONSUMPTION RATES*

Fuel Pump Lift - ft (m)		Diesel - gph (Lph)	
3 (1)		Percent Load	Standby
Total Fuel Pump Flow (Combustion + Return) - gph (Lph)		25%	4.4 (16.7)
		50%	8.3 (31.4)
		75%	11.9 (45)
		100%	14.8 (56)
26 (98)		*Fuel supply installation must accommodate fuel consumption rates at 100% load.	

COOLING

Standby		
Coolant Flow	gpm (Lpm)	63.3 (240.0)
Coolant System Capacity	gal (L)	12.7 (49.2)
Heat Rejection to Coolant	BTU/hr	545,646
Inlet Air	cfm (m³/hr)	8,872 (251)
Maximum Operating Ambient Temperature	°F (°C)	120 (50)
Maximum Operating Ambient Temperature (Before Derate)	See Bulletin No. 0199280SSD	
Maximum Radiator Backpressure	in H2O (kPa)	0.5 (0.12)

COMBUSTION AIR REQUIREMENTS

Standby	
Flow at Rated Power - cfm (m³/min)	595 (16.8)

ENGINE

Standby		
Rated Engine Speed	RPM	1,800
Horsepower at Rated kW**	hp	320
Piston Speed	ft/min	1,593
BMEP	psi	265

**Refer to "Emissions Data Sheet" for maximum bHP for EPA and SCAQMD permitting purposes.

EXHAUST

Standby		
Exhaust Flow (Rated Output)	cfm (m³/min)	1,345 (38.1)
Maximum Allowable Backpressure (Post Silencer)	inHg (kPa)	1.5 (5.1)
Exhaust Temperature (Rated Output Post Silencer)	°F (°C)	920 (493)

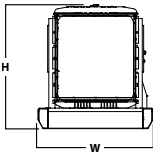
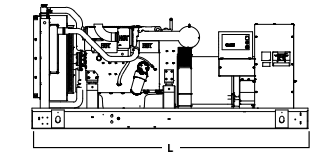
Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions.

Please contact a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with BS5514 and DIN6271 standards.

Standby - See Bulletin 0187500SSB

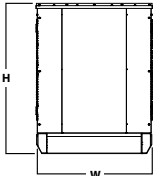
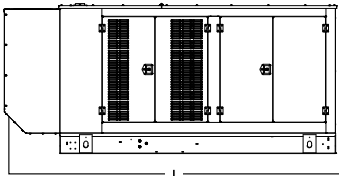
Prime - See Bulletin 0187510SSB

DIMENSIONS AND WEIGHTS*



OPEN SET (Includes Exhaust Flex)

Run Time - Hours	Usable Capacity - gal (L)	L x W x H - in (mm)	Weight - lbs (kg)	
No Tank	-	128 (3,251) x 54 (1,372) x 58 (1,473)	4,465 (2,025))	
10	153 (579)	128 (3,251) x 54 (1,372) x 71 (1,803)	5,470 (2,481)	
25	372 (1,408)	128 (3,251) x 54 (1,372) x 83 (2,108))	5,892 (2,673)	
40	589 (2,230)	128 (3,251) x 54 (1,372) x 95 (2,413)	6,309 (2,862)	
47	693 (2,623)	136 (3,454) x 54 (1,372) x 95 (2,413)	6,060 (2,749)	
64	946 (3,581)	208 (5,283) x 54 (1,372) x 99 (2,515)	7,490 (3,397)	
90	1,325 (5,016)	278 (7,061) x 54 (1,372) x 99 (2,515)	8,505 (3,858)	

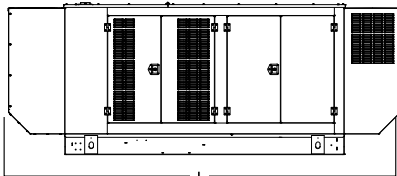
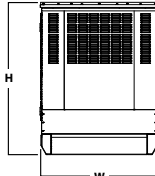


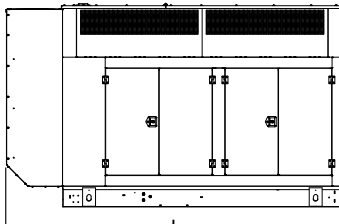
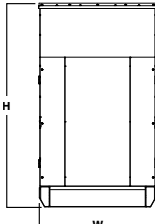
LEVEL 0 SOUND ATTENUATED ENCLOSURE

Run Time - Hours	Usable Capacity - Gal (L)	L x W x H - in (mm)	Weight - lbs (kg) Enclosure Only	
			Steel	Aluminum
No Tank	-	155 (3,937) x 54 (1,372) x 70 (1,778)	941 (427)	474 (215)
10	153 (579)	155 (3,937) x 54 (1,372) x 83 (2,108)		
25	372 (1,408)	155 (3,937) x 54 (1,372) x 95 (2,413)		
40	589 (2,230)	155 (3,937) x 54 (1,372) x 107 (2,718)		
47	693 (2,623)	155 (3,937) x 54 (1,372) x 107 (2,718)		
64	946 (3,581)	208 (5,283) x 54 (1,372) x 111 (2,819)		
90	1,325 (5,016)	278 (7,061) x 54 (1,372) x 111 (2,819)		

* All measurements are approximate and for estimation purposes only. Specification characteristics may change without notice. Please contact a Generac Power Systems Industrial Dealer for detailed installation drawings. Extended and not extended tank offerings vary. Contact dealer for options.

DIMENSIONS AND WEIGHTS*

		LEVEL 1 SOUND ATTENUATED ENCLOSURE			Weight - lbs (kg) Enclosure Only	
		Run Time - Hours	Usable Capacity - Gal (L)	L x W x H - in (mm)	Steel	Aluminum
		No Tank	-	180 (4,572) x 54 (1,372) x 70 (1,778)	1,246 (565)	606 (275)
		10	153 (579)	180 (4,572) x 54 (1,372) x 83 (2,108)		
		25	372 (1,408)	180 (4,572) x 54 (1,372) x 95 (2,413)		
		40	589 (2,230)	180 (4,572) x 54 (1,372) x 107 (2,718)		
		47	693 (2,623)	180 (4,572) x 54 (1,372) x 107 (2,718)		
		64	946 (3,581)	234 (5,944) x 54 (1,372) x 111 (2,819)		
		90	1,325 (5,016)	304 (7,722) x 54 (1,372) x 111 (2,819)		

		LEVEL 2 SOUND ATTENUATED ENCLOSURE			Weight - lbs (kg) Enclosure Only	
		Run Time - Hours	Usable Capacity - Gal (L)	L x W x H - in (mm)	Steel	Aluminum
		No Tank	-	155 (3,937) x 54 (1,372) x 93 (2,362)	1,482 (672)	708 (321)
		10	153 (579)	155 (3,937) x 54 (1,372) x 106 (2,692)		
		25	372 (1,408)	155 (3,937) x 54 (1,372) x 118 (2,997)		
		40	589 (2,230)	155 (3,937) x 54 (1,372) x 130 (3,302)		
		47	693 (2,623)	155 (3,937) x 54 (1,372) x 130 (3,302)		
		64	946 (3,581)	208 (5,283) x 54 (1,372) x 132 (3,353)		
		90	1,325 (5,016)	278 (7,061) x 54 (1,372) x 132 (3,353)		

* All measurements are approximate and for estimation purposes only. Specification characteristics may change without notice. Please contact a Generac Power Systems Industrial Dealer for detailed installation drawings. Extended and not extended tank offerings vary. Contact dealer for options.