SD1500 | 65.4L | 1,500 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

Standby Power Rating

1,500 kW, 1,875 kVA, 60 Hz

Prime Power Rating*

1,350 kW, 1,688 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

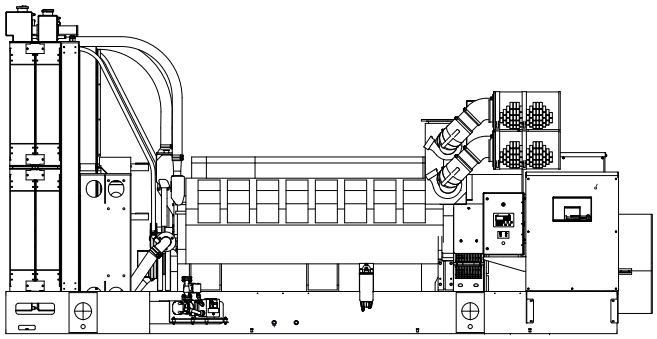

Image used for illustration purposes only.

Codes and Standards

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

UL2200, UL6200, UL1236, UL489, UL142

CSA C22.2, ULC S601

BS5514 and DIN 6271

SAE J1349

NFPA 37, 70, 99, 110

NEC700, 701, 702, 708

NEMA ICS10, MG1, 250, ICS6, AB1

ANSI C62.41

Powering a Smarter World

For over 65 years, Generac has been at the forefront of power generation, pioneering innovative solutions and unparalleled manufacturing excellence. At the heart of our reputation for superior quality lies our commitment to meticulously designing and manufacturing key components of our generators—ranging from alternators and enclosures to base tanks, control systems, and cutting-edge communications software.

Generac's gensets stand out for their unparalleled versatility and reliability. Engineered to offer a wide range of options and configurations, they are tailored to meet the unique demands of virtually any application, seamlessly adapting to its complexity. Our commitment to reliability drives us to globally source only the most dependable engines, selected through stringent criteria to ensure they perform optimally under the toughest industrial conditions.

Beyond the sale, Generac's dedication to our customers extends to comprehensive service support, ensuring peace of mind and reliability long after your purchase. Our commitment is to not only provide state-of-the-art power solutions but also to ensure the enduring success and satisfaction of our customers through ongoing support and service excellence.

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STANDARD FEATURES

ENGINE SYSTEM
- Oil Drain Extension
- Air Cleaner
- Level 1 Fan and Belt Guards (Open Set Only)
- Stainless Steel Flexible Exhaust Connection
- Hospital Grade Silencer
- Factory Filled Oil and Coolant
- Radiator Duct Adapter (Open Set Only)

FUEL SYSTEM
- NPT Flexible Fuel Lines (When Tank is Selected)
- Primary Fuel Filter

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

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

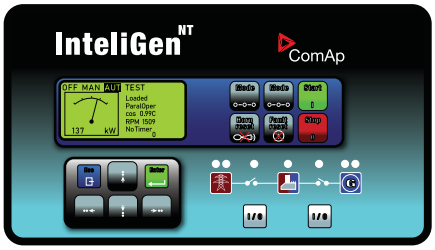
ALTERNATOR SYSTEM
- Class H Insulation Material
- 2/3 Pitch
- Skewed Stator
- Permanent Magnet Excitation
- Sealed Bearing
- Full Load Capacity Alternator

GENERATOR SET
- Separation of Circuits - High/Low Voltage
- Separation of Circuits - Multiple Breakers
- Standard Factory Testing
- 2 Year Limited Warranty (Standby Rated Units)
- 1 Year Limited Warranty (Prime Rated Units)

ENCLOSURE (If Selected)
- Structural Steel Sub-Base
- Sub-Base Lifting Eyes
- Enamel Finish
- Zinc Plated Fasteners
- Zinc Plated Cast Aluminum Keylock Door Handles
- Heavy Duty Stainless Steel Hinges with Removable Brass Pins
- Modular Construction
- Rhino Coat™ - Textured Polyester Powder Coat Paint

FUEL TANKS (If Selected)
- UL 142/ULC S601
- Double Wall Construction
- Vents
- Factory Pressure Tested (2 psi)
- Rupture Basin Alarm
- Fuel Level
- Check Valve In Supply and Return Lines
- Stainless Steel Hardware
- Fuel Line Hose
- Fuel Line Hose and Separator
- Electric Fuel Level
- Secondary Fuel Filter

CONTROL SYSTEM



InteliGen® NT Display

Program Functions
- Programmable Crank Limiter
- 7-Day Programmable Exerciser
- Special Applications Programmable Logic Controller
- RS-232/485 Communications
- 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
- 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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INDUSTRIAL DIESEL GENERATOR SET

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CONFIGURABLE OPTIONS

ENGINE SYSTEM
- 50° Ambient Cooling System
- Critical Grade Silencers (Open Set Only)
- Hospital Grade Silencer (Enclosed Units Only)
- Radiator Stone Guard (Open Set Only)
- Air Cleaner with Crank Case Ventilation
- Air Cleaner with Indicator
- Engine Coolant Heater
- Radiator Duct Flange

ELECTRICAL SYSTEM
- 10A UL Listed Battery Charger
- 20A UL Listed Battery Charger
- Battery Warmer

ALTERNATOR SYSTEM
- Alternator Upsizing
- Anti-Condensation Heater

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

GENERATOR SET
- Spring Isolators (Standard/Seismic)
- Extended Factory Testing

ENCLOSURE
- Weather Protected Enclosure
- Level 1 Sound Attenuated
- Level 2 Sound Attenuated
- Steel Enclosure
- Aluminum Enclosure
- Up to 200 mph Wind Load Rating (Contact Factory for Availability)
- Louvers with Gravity Dampers
- AC Enclosure Lighting Kit

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

CONTROL SYSTEM
- NFPA110 Level I and II (Programmable) 15- LED Remote Annunciator
- Remote Relay Assembly (8 or 16)
- Remote E-Stop (Surface Mount)
- Local E-Stop Panel
- Remote Communication - InternetBridge NT
- 10A Engine Run Relay
- Low Coolant Level Indication
- 90% Alarm High Fuel Program

FUEL TANKS (Size on Last Page)
- 12 Hour Run Time
- 24 Hour Run Time

ENGINEERED OPTIONS

ENGINE SYSTEM
- Coolant Heater Ball Valves
- Fluid Containment Pan
- Oil Heater

ALTERNATOR SYSTEM
- 3rd Breaker System
- Unit Mounted Load Banks
- Medium Voltage Alternators
- Digital Voltage Regulator

CONTROL SYSTEM
- Spare Inputs (x4) / Outputs (x4)
- Battery Disconnect Switch

GENERATOR SET
- Special Testing
- 12 VDC Enclosure Lighting Kit

ENCLOSURE
- Motorized Dampers
- Enclosure Heaters (with Motorized Dampers Only)
- Door Open Alarm Horn

FUEL TANKS
- Overfill Protection Valve
- UL2085 Tank
- Special Fuel Tanks
- Vent Extensions
- Transfer Pumps and Controllers
- Fuel Tank Heaters

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INDUSTRIAL DIESEL GENERATOR SET

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APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

General

Make	Mitsubishi
EPA Emissions Compliance	Tier 2
EPA Emissions Reference	See Emission Data Sheet
Cylinders	16
Type	4 Cycle
Displacement - in^3 (L)	3,989 (65.4)
Bore - in (mm)	6.69 (170)
Stroke - in (mm)	7.09 (180)
Compression Ratio	14.5:1
Intake Air Method	Turbocharged/Intercooled
Cylinder Head Type	4–Valve
Piston Type	Aluminum
Crankshaft Type	Dropped Forged Steel

Engine Governing

Governor	Proact2 Isochronous
Frequency Regulation (Steady State)	±0.25%

Lubrication System

Oil Pump Type	Gear
Oil Filter Type	Cartridge
Crankcase Capacity - qt (L)	212 (200)

Cooling System

Cooling System Type	Unit Mounted Radiator
Water Pump Type	Centrifugal
Fan Type	Pusher
Fan Speed (rpm)	710
Fan Diameter - in (cm)	81 (205.7)

Fuel System

Fuel type	Ultra Low Sulfur Diesel #2
Carburetor	ASTM
Fuel Filtering (Microns)	10 (Final Filters)
Fuel Inject Pump Make	Mechanical
Injector Type	Mitsubishi PS8 Type x 2
Engine Type	S16R-Y2PTAW-1
Fuel Supply Line - in (mm)	3/4 in NPT (19.0)
Fuel Return Line - in (mm)	3/4 in NPT (19.0)

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	K1500064N22
Poles	4
Field Type	Rotating
Insulation Class - Rotor	H
Insulation Class - Stator	H
Total Harmonic Distortion	<5%
Telephone Interference Factor (TIF)	<50
Standard Excitation	Permanent Magnet Excitation
Bearings	Single Seated Cartridge
Coupling	Direct via Flexible Disc
Load Capacity - Standby	100%
Prototype Short Circuit Test	Yes
Voltage Regulator Type	Analog
Regulation Accuracy (Steady State)	±0.5%

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INDUSTRIAL DIESEL GENERATOR SET

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GENERAC | INDUSTRIAL POWER

OPERATING DATA

POWER RATINGS

		Standby
Three-Phase 277/480 VAC @0.8pf	1,500 kW	Amps: 2,255
Three-Phase 346/600 VAC @0.8pf	1,500 kW	Amps: 1,804

MOTOR STARTING CAPABILITIES (SKVA)

skVA vs. Voltage Dip

120/240 VAC	30%
K1500064N22	4,500
K1788064N22	Contact Factory

FUEL CONSUMPTION RATES*

Fuel Pump Lift - ft (m)
3 (1)

Total Fuel Pump Flow (Combustion + Return) – gph (Lph)
148 (560)

Diesel – gph (Lph)

Percent Load	Standby
25%	36.5 (138)
50%	66.0 (250)
75%	97.3 (368)
100%	133.0 (504)

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

COOLING

Cooling Rating - Jacket Water		Standby
Coolant Flow	gpm (Lpm)	489 (1,851)
Coolant System Capacity	gal (L)	100 (389)
Heat Rejection to Coolant	BTU/hr (kW)	2,122,320 (622)
Inlet Air - 40 °C Cooling Package	scfm (m^3/min)	83,500 (2,365)
Inlet Air - 50 °C Cooling Package	scfm (m^3/min)	83,500 (2,365)
Maximum Operating Ambient Temperature	°F (°C)	122 (50)
Maximum Operating Ambient Temperature (Before Derate)		See Bulletin No. 0199280SSD
Maximum Allowable Radiator Backpressure	in H_2O (kPa)	0.5 (0.12)

Cooling Rating - Aftercooler		Standby
Coolant Flow	gpm (Lpm)	243 (920)
Coolant System Capacity	gal (L)	58 (220)
Heat Rejection to Coolant	BTU/hr (kW)	2,122,320 (622)

Cooling Rating - Fuel Pump		Standby
Heat Rejected to Fuel	BTU/hr (kW)	18,808 (5.5)

COMBUSTION AIR REQUIREMENTS

	Standby
Flow at rated power scfm - (m^3/min)	5,932 (168)

ENGINE

		Standby
Rated Engine Speed	rpm	1,800
Horsepower at Rated kW**	hp	2,346
Piston Speed	ft/min (m/min)	2,126 (648)
BMEP	psi (kPa)	259 (1,786)

EXHAUST

		Standby
Exhaust Flow (Rated Output)	scfm (m^3/min)	14,665 (415)
Maximum Backpressure (Post Silencer)	inHg (kPa)	1.7 (5.87)
Exhaust Temperature (Rated Output - Post Silencer)	°F (°C)	932 (500)

** See “Emissions Data Sheet” for maximum bHP for EPA and SCAQMD permitting purposes.
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 ISO3046, BS5514, ISO8528, and DIN6271 standards.
Standby - See Bulletin 0187500SSB
Prime - See Bulletin 0187510SSB

SD1500 | 65.4L | 1,500 kW

INDUSTRIAL DIESEL GENERATOR SET

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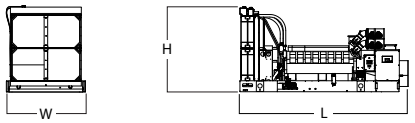
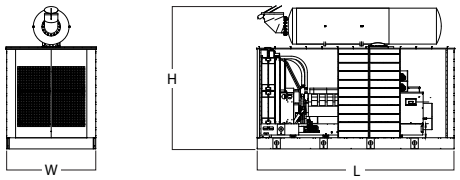
DIMENSIONS AND WEIGHTS*



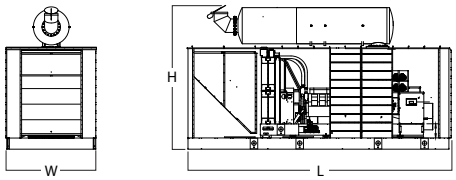
OPEN SET

Run Time Hours	Usable Capacity - gal (L)	L x W x H - in (cm)	Weight - lbs (kg)
Open	—	231 x 107 x 117 (584.4 x 271.2 x 295.5)	35,078 (15,911)
Open 12	1,525 (5,774)	265 x 125 x 140 (670.6 x 315.8 x 356.4)	41,778 (18,950)
Open 24	3,050 (11,547)	265 x 125 x 156 (670.6 x 315.8 x 394.5)	44,178 (20,039)



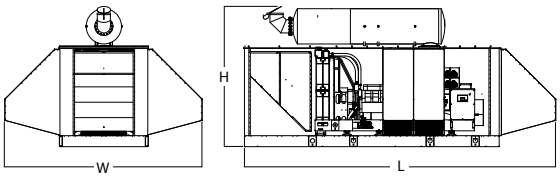
WEATHER PROTECTED ENCLOSURE

Run Time Hours	Usable Capacity - gal (L)	L x W x H - in (cm)	Weight - lbs (kg)	
			Steel	Aluminum
L0	—	265 x 120 x 189 (670.6 x 304.8 x 479.3)	41,078 (18,632)	41,061 (18,624)
L0 12	1,525 (5,774)	270 x 122 x 194 (683.4 x 323.4 x 492.5)	46,580 (21,128)	46,563 (21,121)
L0 24	3,050 (11,547)	270 x 122 x 209 (683.4 x 323.4 x 530.6)	49,078 (22,261)	49,061 (22,254)



LEVEL 1 SOUND ATTENUATED ENCLOSURE

Run Time Hours	Usable Capacity - gal (L)	L x W x H - in (cm)	Weight - lbs (kg)	
			Steel	Aluminum
L1	—	351 x 120 x 189 (891.5 x 304.8 x 479.3)	42,878 (19,449)	42,197 (19,140)
L1 12	1,525 (5,774)	351 x 130 x 191 (891.5 x 328.8 x 484.4)	49,595 (22,496)	48,914 (22,817)
L1 24	3,050 (11,547)	351 x 130 x 210 (891.5 x 328.8 x 530.9)	51,124 (23,189)	50,443 (22,881)



LEVEL 2 SOUND ATTENUATED ENCLOSURE

Run Time Hours	Usable Capacity - gal (L)	L x W x H - in (cm)	Weight - lbs (kg)	
			Steel	Aluminum
L2	—	426 x 269 x 192 (1,080.2 x 681.9 x 486.7)	46,078 (20,901)	43,304 (19,642)
L2 12	1,525 (5,774)	426 x 269 x 191 (1,080.2 x 681.9 x 484.4)	52,795 (23,947)	50,021 (22,689)
L2 24	3,050 (11,547)	426 x 269 x 201 (1,080.2 x 681.9 x 509.8)	54324 (24,641)	51550 (23,383)

* All measurements are approximate and for estimation purposes only.

YOUR FACTORY RECOGNIZED GENERAC INDUSTRIAL DEALER

Specification characteristics may change without notice. Dimensions and weights are for preliminary purposes only. Please consult a Generac Power Systems Industrial Dealer for detailed installation drawings

Generac Power Systems, Inc. | S45 W29290 HWY. 59 | Waukesha, WI 53189 | generac.com

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