

MD300

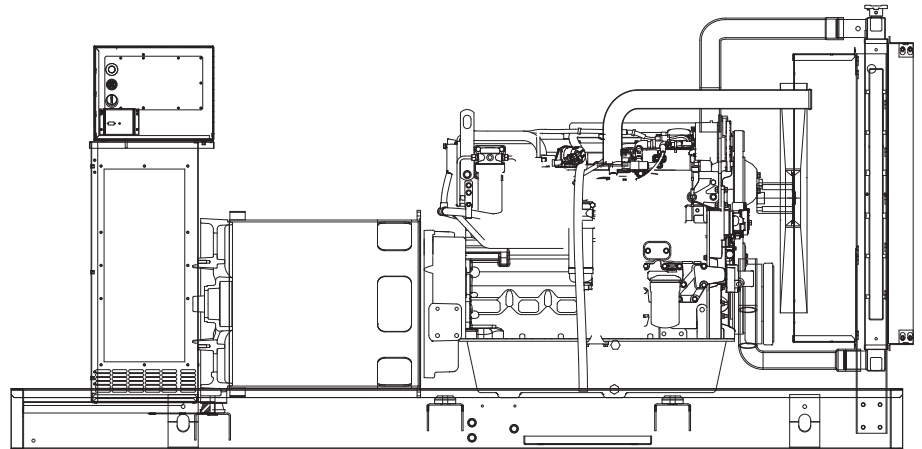
PARALLELING UNIT

Industrial Diesel Generator Set

EPA Certified Stationary Emergency

Standby Power Rating
375kVA 300kW 60Hz

Prime Power Rating*
338kVA 270KW 60Hz

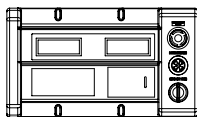
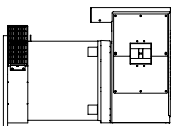
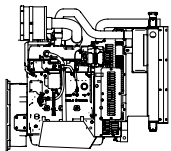
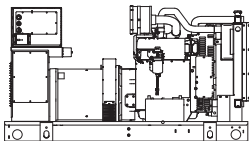


Generator image used for illustration purposes only

*EPA Certified Prime ratings are not available in the U.S. or its Territories for engine model year 2011 and beyond

features

benefits



Generator Set

- PROTOTYPE & TORSIONALLY TESTED
- UL2200 TESTED
- RHINOCOAT PAINT SYSTEM
- WIDE RANGE OF ENCLOSURES AND TANKS
- ▶ PROVIDES A PROVEN UNIT
- ▶ ENSURES A QUALITY PRODUCT
- ▶ IMPROVES RESISTANCE TO ELEMENTS
- ▶ PROVIDES A SINGLE SOURCE SOLUTION

Engine

- EPA COMPLIANT
- INDUSTRIAL TESTED, GENERAC APPROVED
- POWER-MATCHED OUTPUT
- INDUSTRIAL GRADE
- ▶ ENVIRONMENTALLY FRIENDLY
- ▶ ENSURES INDUSTRIAL STANDARDS
- ▶ ENGINEERED FOR PERFORMANCE
- ▶ IMPROVES LONGEVITY AND RELIABILITY

Alternator

- TWO-THIRDS PITCH
- LAYER WOUND ROTOR & STATOR
- CLASS H MATERIALS
- DIGITAL 3-PHASE VOLTAGE CONTROL
- ▶ ELIMINATES HARMFUL 3RD HARMONIC
- ▶ IMPROVES COOLING
- ▶ HEAT TOLERANT DESIGN
- ▶ FAST AND ACCURATE RESPONSE

Controls

- ENCAPSULATED BOARD W/ SEALED HARNESS
- 4-20mA VOLTAGE-TO-CURRENT SENSORS
- SURFACE-MOUNT TECHNOLOGY
- ADVANCED DIAGNOSTICS & COMMUNICATIONS
- ▶ EASY, AFFORDABLE REPLACEMENT
- ▶ NOISE RESISTANT 24/7 MONITORING
- ▶ PROVIDES VIBRATION RESISTANCE
- ▶ HARDENED RELIABILITY

primary codes and standards



MD300

application and engineering data

ENGINE SPECIFICATIONS

General

Make	Generac
EPA Emissions Compliance	Stationary Emergency
EPA Emissions Reference	See Emissions Data Sheet
Cylinder #	6
Type	In-Line
Displacement - L	10.3
Bore - mm (in.)	125 (4.92)
Stroke - mm (in.)	140 (5.51)
Compression Ratio	16.5:1
Intake Air Method	Turbocharged/Aftercooled
Cylinder Head Type	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 Capacity - L (qts)	30 (31.68)

Cooling System

Cooling System Type	Closed Recovery
Water Pump Flow	Pre-Lubed, Self Sealing
Fan Type	Pusher
Fan Speed (rpm)	2250 rpm
Fan Diameter mm (in.)	762 (30.0)
Coolant Heater Standard Wattage	2000
Coolant Heater Standard Voltage	240VAC

Fuel System

Fuel Type	Ultra Low Sulfur Diesel Fuel
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 (½")
Fuel Return Line - mm (in.)	12.7 (½")

Engine Electrical System

System Voltage	24VDC
Battery Charging Alternator	Std
Battery Size (at 0°C)	1155 CCA
Battery Group	8D
Battery Voltage	(2) - 12VDC
Ground Polarity	Negative

ALTERNATOR SPECIFICATIONS

Standard Model	520 mm Generac
Poles	4
Field Type	Revolving
Insulation Class - Rotor	H
Insulation Class - Stator	H
Total Harmonic Distortion	< 5%
Telephone Interference Factor (TIF)	< 50
Standard Excitation	Permanent Magnent
Bearings	Single Sealed Cartridge
Coupling	Direct, Flexible Disc
Load Capacity - Standby	100%
Prototype Short Circuit Test	Yes

Voltage Regulator Type	Digital
Number of Sensed Phases	All
Regulation Accuracy (Steady State)	± 0.25%

CODES AND STANDARDS COMPLIANCE (WHERE APPLICABLE)

NFPA 99	BS5514
NFPA 110	SAE J1349
ISO 8528-5	DIN6271
ISO 1708A.5	IEEE C62.41 TESTING
ISO 3046	NEMA ICS 1
	UL2200

PARALLELING CONTROLS

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 CONTROL (PLS)

Rating Definitions:

Standby – Applicable for a varying emergency load for the duration of a utility power outage with no overload capability. (Max. load factor = 70%)

Prime – Applicable for supplying power to a varying load in lieu of utility for an unlimited amount of running time. (Max. load factor = 80%) A 10% overload capacity is available for 1 out of every 12 hours.

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operating data (60Hz)

POWER RATINGS (kW)

	STANDBY		PRIME	
Three-Phase 120/208VAC @0.8pf	288 kW	Amps: 1000	270 kW	Amps: 937
Three-Phase 277/480VAC @0.8pf	300 kW	Amps: 451	270 kW	Amps: 406
Three-Phase 346/600VAC @0.8pf	300 kW	Amps: 361	270 kW	Amps: 325

STARTING CAPABILITIES (sKVA)

		sKVA vs. Voltage Dip											
		480VAC						208/240VAC					
Alternator	kW	10%	15%	20%	25%	30%	35%	10%	15%	20%	25%	30%	35%
Standard	300	303	454	605	757	908	1059	227	341	454	568	681	794
Upsize 1	400	387	581	775	968	1162	1356	345	570	835	1100	1450	1710
Upsize 2	500	457	686	914	1143	1371	1600	-	-	-	-	-	-

FUEL

		Fuel Consumption Rates*					
		STANDBY			PRIME		
		Percent Load	gph	lph	Percent Load	gph	lph
Fuel Pump Lift - in (mm)	36 (900)	25%	7.6	28.7	25%	6.9	26.1
		50%	12.6	47.7	50%	11.6	43.9
		75%	17.4	65.9	75%	15.8	59.8
		100%	22.1	83.7	100%	19.9	75.3
Total Fuel Pump Flow (Combustion + Return)	31 gph						

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

COOLING

		STANDBY	PRIME
Coolant Flow per Minute	gpm (lpm)	95 (360)	95 (360)
Heat Rejection to Coolant	BTU/hr	814,783	733,673
Inlet Air	cfm (m3/min)	14,505 (411)	14,505 (411)
Max. Operating Radiator Air Temp	F° (C°)	122 (50)	122 (50)
Max. Operating Ambient Temperature	F° (C°)	104 (40)	104 (40)
Coolant System Capacity	gal (L)	16.6 (63)	16.6 (63)
Maximum Radiator Backpressure	in H ₂ O	1.5	1.5

COMBUSTION AIR REQUIREMENTS

		STANDBY	PRIME
Flow at Rated Power	cfm (m3/min)	850 (24.07)	765 (21.67)

ENGINE

		STANDBY	PRIME
Rated Engine Speed	rpm	1800	1800
Horsepower at Rated kW**	hp	480	432
Piston Speed	ft/min	1654	1654
BMEP	psi	336	302

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

EXHAUST

		STANDBY	PRIME
Exhaust Flow (Rated Output)	cfm (m ³ /min)	2240 (63.4)	2016 (57.1)
Max. Backpressure (Post Silencer)	inHg (Kpa)	1.5 (5.1)	1.5 (5.1)
Exhaust Temp (Rated Output)	°F (°C)	1020 (549)	918 (492)
Exhaust Outlet Size (Open Set)	NPT (male)	101.6 (4)	101.6 (4)

Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions. Please consult a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528 and DIN6271 standards.

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standard features and options

GENERATOR SET

<input checked="" type="radio"/>	Genset Vibration Isolation	Std
<input type="radio"/>	IBC Seismic Certified/Seismic Rated Vibration Isolators	Opt
<input type="radio"/>	Extended warranty	Opt
<input type="radio"/>	Gen-Link Communications Software	Opt
<input type="radio"/>	Steel Enclosure	Opt
<input type="radio"/>	Aluminum Enclosure	Opt
<input type="radio"/>	Enclosure Lighting Kits	Opt

ENGINE SYSTEM

<u>General</u>		
<input checked="" type="radio"/>	Oil Drain Extension	Std
<input type="radio"/>	Oil Make-Up System	Opt
<input type="radio"/>	Oil Heater	Opt
<input checked="" type="radio"/>	Air cleaner	Std
<input checked="" type="radio"/>	Fan guard	Std
<input checked="" type="radio"/>	Radiator duct adapter	Std
<input checked="" type="radio"/>	Industrial Exhaust Silencer	Std
<input type="radio"/>	Critical Exhaust Silencer	Opt
<u>Fuel System</u>		
<input checked="" type="radio"/>	Fuel lockoff solenoid	Std
<input checked="" type="radio"/>	Secondary fuel filter	Std
<input checked="" type="radio"/>	Stainless steel flexible exhaust connection	Std
<input type="radio"/>	Flexible fuel lines	Opt
<input type="radio"/>	Primary fuel filter	Opt
<input type="radio"/>	Single Wall Tank (Export Only)	-
<input type="radio"/>	UL 142 Fuel Tank	Opt
<u>Cooling System</u>		
<input type="radio"/>	120VAC Coolant Heater	Opt
<input type="radio"/>	208VAC Coolant Heater	Opt
<input checked="" type="radio"/>	240VAC Coolant Heater	Std
<input type="radio"/>	Other Coolant Heater	-
<input checked="" type="radio"/>	Closed Coolant Recovery System	Std
<input checked="" type="radio"/>	UV/Ozone resistant hoses	Std
<input checked="" type="radio"/>	Factory-Installed Radiator	Std
<input checked="" type="radio"/>	Radiator Drain Extension	Std
<u>Engine Electrical System</u>		
<input checked="" type="radio"/>	Battery charging alternator	Std
<input checked="" type="radio"/>	Battery cables	Std
<input checked="" type="radio"/>	Battery tray	Std
<input type="radio"/>	Battery box	Opt
<input type="radio"/>	Battery heater	Opt
<input checked="" type="radio"/>	Solenoid activated starter motor	Std
<input type="radio"/>	10A UL float/equalize battery charger	Opt
<input checked="" type="radio"/>	Rubber-booted engine electrical connections	Std

ALTERNATOR SYSTEM

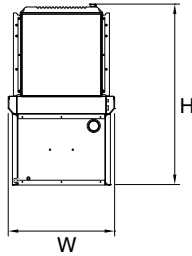
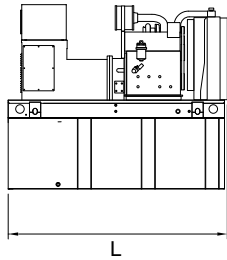
<input checked="" type="radio"/>	UL2200 GENprotect™	Std
<input checked="" type="radio"/>	Main Line Circuit Breaker (Output connections on paralleling switch)	Std
<input type="radio"/>	Alternator Upsizing	Opt
<input type="radio"/>	Anti-Condensation Heater	Opt
<input type="radio"/>	Tropical coating	Opt
<input checked="" type="radio"/>	Permanent Magnet Generator	Std

CONTROL SYSTEM

<u>Control Panel</u>		
<input type="radio"/>	Digital H Control Panel - Dual 4x20 Display	na
<input type="radio"/>	Digital G-100 Control Panel - Touchscreen	na
<input checked="" type="radio"/>	Digital G-200 Paralleling Control Panel - Touchscreen	Std
<input checked="" type="radio"/>	Programmable Crank Limiter	Std
<input type="radio"/>	21-Light Remote Annunciator	Opt
<input type="radio"/>	Remote Relay Panel (8 or 16)	Opt
<input checked="" type="radio"/>	7-Day Programmable Exerciser	Std
<input checked="" type="radio"/>	Special Applications Programmable PLC	Std
<input checked="" type="radio"/>	RS-232	Std
<input checked="" type="radio"/>	RS-485	Std
<input checked="" type="radio"/>	All-Phase Sensing DVR	Std
<input checked="" type="radio"/>	Full System Status	Std
<input checked="" type="radio"/>	Utility Monitoring (Req. H-Transfer Switch)	Std
<input checked="" type="radio"/>	2-Wire Start Compatible	Std
<input checked="" type="radio"/>	Power Output (kW)	Std
<input checked="" type="radio"/>	Power Factor	Std
<input checked="" type="radio"/>	Reactive Power	Std
<input checked="" type="radio"/>	All phase AC Voltage	Std
<input checked="" type="radio"/>	All phase Currents	Std
<input checked="" type="radio"/>	Oil Pressure	Std
<input checked="" type="radio"/>	Coolant Temperature	Std
<input checked="" type="radio"/>	Coolant Level	Std
<input type="radio"/>	Oil Temperature	Opt
<input checked="" type="radio"/>	Fuel Pressure	Std
<input checked="" type="radio"/>	Engine Speed	Std
<input checked="" type="radio"/>	Battery Voltage	Std
<input checked="" type="radio"/>	Frequency	Std
<input checked="" type="radio"/>	Date/Time Fault History (Event Log)	Std
<input type="radio"/>	Low-Speed Exercise	-
<input checked="" type="radio"/>	Isochronous Governor Control	Std
<input checked="" type="radio"/>	-40deg C - 70deg C Operation	Std
<input checked="" type="radio"/>	Waterproof Plug-In Connectors	Std
<input checked="" type="radio"/>	Audible Alarms and Shutdowns	Std
<input checked="" type="radio"/>	Not in Auto (Flashing Light)	Std
<input checked="" type="radio"/>	Auto/Off/Manual Switch	Std
<input checked="" type="radio"/>	E-Stop (Red Mushroom-Type)	Std
<input type="radio"/>	Remote E-Stop (Break Glass-Type, Surface Mount)	Opt
<input type="radio"/>	Remote E-Stop (Red Mushroom-Type, Surface Mount)	Opt
<input type="radio"/>	Remote E-Stop (Red Mushroom-Type, Flush Mount)	Opt
<input checked="" type="radio"/>	NFPA 110 Level I and II (Programmable)	Std
<input checked="" type="radio"/>	Remote Communication - RS232	Std
<input type="radio"/>	Remote Communication - Modem	Opt
<input type="radio"/>	Remote Communication - Ethernet	Opt
<input type="radio"/>	PLS Full Auto Back-Up for PM-SC	Opt
<u>Alarms (Programmable Tolerances, Pre-Alarms and Shutdowns)</u>		
<input type="radio"/>	Low Fuel	Opt
<input checked="" type="radio"/>	Oil Pressure (Pre-programmed Low Pressure Shutdown)	Std
<input checked="" type="radio"/>	Coolant Temperature (Pre-programmed High Temp Shutdown)	Std
<input checked="" type="radio"/>	Coolant Level (Pre-programmed Low Level Shutdown)	Std
<input checked="" type="radio"/>	Oil Temperature	Std
<input checked="" type="radio"/>	Engine Speed (Pre-programmed Overspeed Shutdown)	Std
<input checked="" type="radio"/>	Voltage (Pre-programmed Overvoltage Shutdown)	Std
<input checked="" type="radio"/>	Battery Voltage	Std

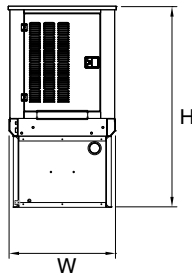
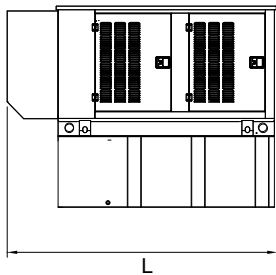
MD300

dimensions, weights and sound levels



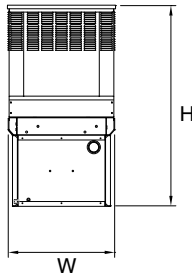
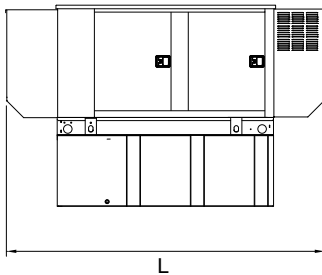
OPEN SET

RUN TIME HOURS	USABLE CAPACITY (GAL)	L	W	H	WT	dBA*
NO TANK	-	136	58	68	6088	89
8	183	136	58	81	7036	
20	438	136	58	93	7348	
31	693	136	58	105	7651	
43	946	208	58	108	9295	
60	1325	278	58	108	10128	



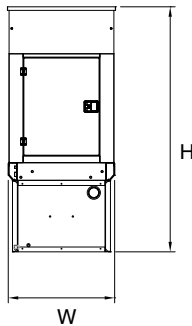
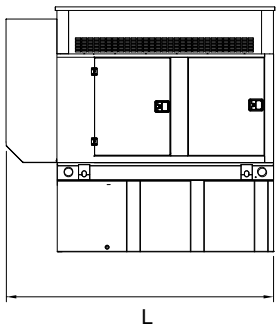
STANDARD ENCLOSURE

RUN TIME HOURS	USABLE CAPACITY (GAL)	L	W	H	WT	dBA*
NO TANK	-	175	58	78	8106	84
8	183	175	58	91	9054	
20	438	175	58	103	9366	
31	693	175	58	115	9669	
43	946	208	58	118	11313	
60	1325	278	58	118	12146	



LEVEL 1 ACOUSTIC ENCLOSURE

RUN TIME HOURS	USABLE CAPACITY (GAL)	L	W	H	WT	dBA*
NO TANK	-	200	58	78	8479	78
8	183	200	58	91	9427	
20	438	200	58	103	9739	
31	693	200	58	115	10042	
43	946	234	58	118	11686	
60	1325	304	58	118	12519	



LEVEL 2 ACOUSTIC ENCLOSURE

RUN TIME HOURS	USABLE CAPACITY (GAL)	L	W	H	WT	dBA*
NO TANK	-	181	58	107	7988	75
8	183	181	58	120	8936	
20	438	181	58	132	9248	
31	693	181	58	144	9551	
43	946	208	58	147	11195	
60	1325	278	58	147	12028	

*All measurements are approximate and for estimation purposes only. Weights are without fuel in tank. Sound levels measured at 23ft (7m) and does not account for ambient site conditions.

Tank Options

<input type="radio"/> MDEQ	OPT
<input type="radio"/> Florida DERM/DEP	OPT
<input type="radio"/> Chicago Fire Code	OPT
<input type="radio"/> IFC Certification	CALL
<input type="radio"/> ULC	CALL

Other Custom Options Available from your Generac Industrial Power Dealer

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.