GENERAC | INDUSTRIAL POWER

MD350

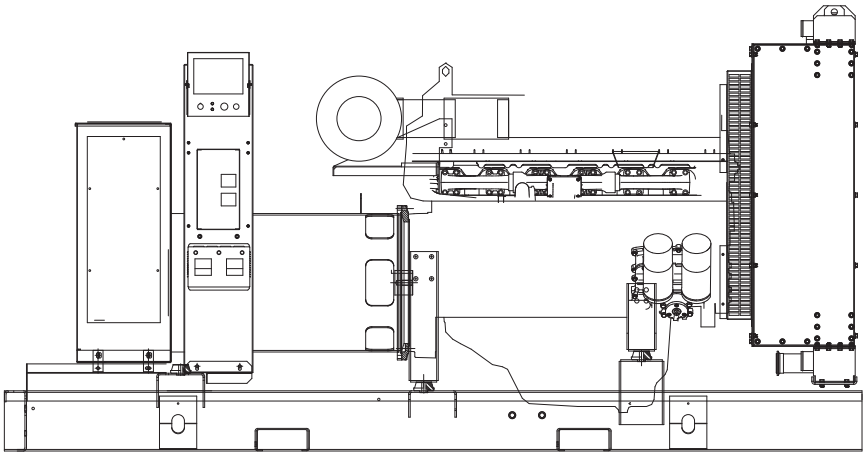
PARALLELING UNIT

Industrial Diesel Generator Set

EPA Certified Stationary Emergency

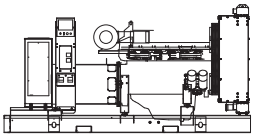
Standby Power Rating
438kVA 350kW 60Hz

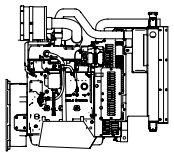
Prime Power Rating*
394kVA 315KW 60Hz

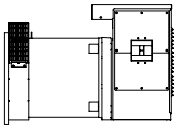


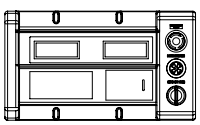
Generator image used for illustration purposes only

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









features benefits

features	benefits
Generator Set	
PROTOTYPE & TORSIONALLY TESTED	PROVIDES A PROVEN UNIT
UL2200 TESTED	ENSURES A QUALITY PRODUCT
RHINOCOAT PAINT SYSTEM	IMPROVES RESISTANCE TO ELEMENTS
WIDE RANGE OF ENCLOSURES AND TANKS	PROVIDES A SINGLE SOURCE SOLUTION
Engine	
EPA COMPLIANT	ENVIRONMENTALLY FRIENDLY
INDUSTRIAL TESTED, GENERAC APPROVED	ENSURES INDUSTRIAL STANDARDS
POWER-MATCHED OUTPUT	ENGINEERED FOR PERFORMANCE
INDUSTRIAL GRADE	IMPROVES LONGEVITY AND RELIABILITY
Alternator	
TWO-THIRDS PITCH	ELIMINATES HARMFUL 3RD HARMONIC
LAYER WOUND ROTOR & STATOR	IMPROVES COOLING
CLASS H MATERIALS	HEAT TOLERANT DESIGN
DIGITAL 3-PHASE VOLTAGE CONTROL	FAST AND ACCURATE RESPONSE
Controls	
ENCAPSULATED BOARD W/ SEALED HARNESS	EASY, AFFORDABLE REPLACEMENT
4-20mA VOLTAGE-TO-CURRENT SENSORS	NOISE RESISTANT 24/7 MONITORING
SURFACE-MOUNT TECHNOLOGY	PROVIDES VIBRATION RESISTANCE
ADVANCED DIAGNOSTICS & COMMUNICATIONS	HARDENED RELIABILITY

primary codes and standards

NEMA · cULus LISTED · NFPA · ASTM INTERNATIONAL · ISO · ICC

GENERAC | INDUSTRIAL POWER

MD350 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	12.9
Bore - mm (in.)	134.6 (5.3)
Stroke - mm (in.)	149.9 (5.9)
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)	35 (36.9)

Cooling System

Cooling System Type	Closed
Water Pump Flow	Belt Driven Centrifugal
Fan Type	Pusher
Fan Speed (rpm)	2466 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	Electronic
Engine Type	Pre-Combustion
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 0ºC)	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	One - Pre Lubed & Sealed
Coupling	Direct, Flexible Disc
Load Capacity - Standby	100%
Prototype Short Circuit Test	Yes

Voltage Regulator Type	Digital
Number of Sensed Phases	3
Regulation Accuracy (Steady State)	± 0.25%

CODES AND STANDARDS COMPLIANCE (WHERE APPLICABLE)

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

MD350 operating data (60Hz)

POWER RATINGS (kW)

	STANDBY		PRIME	
Three-Phase 277/480VAC @0.8pf	350 kW	Amps: 527	315 kW	Amps: 474
Three-Phase 346/600VAC @0.8pf	350 kW	Amps: 421	315 kW	Amps: 379

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	400	387	581	775	968	1162	1356	-	-	-	-	-	-
Upsize 1	442	475	720	915	1145	1030	1290	-	-	-	-	-	-
Upsize 2	555	457	686	914	1143	1371	1600	-	-	-	-	-	-

FUEL

Fuel Pump Lift - in (mm)
36 (900)

Total Fuel Pump Flow (Combustion + Return)
31 gph

Fuel Consumption Rates*

	STANDBY			PRIME	
Percent Load	gph	lph	Percent Load	gph	lph
25%	8.4	31.8	25%	7.56	28.8
50%	14.5	54.9	50%	13.05	49.6
75%	20.1	76.1	75%	18.09	68.5
100%	25.3	95.8	100%	22.77	86.3

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

COOLING

		STANDBY	PRIME
Coolant Flow per Minute	gpm (lpm)	145 (552)	145 (552)
Heat Rejection to Coolant	BTU/hr	932,760	840,590
Inlet Air	cfm (m3/min)	19,070 (539.7)	19,070 (539.7)
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_2O	1.5	1.5

COMBUSTION AIR REQUIREMENTS

		STANDBY	PRIME
Flow at Rated Power	cfm (m3/min)	1195 (33.8)	1076 (30.4)

ENGINE

		STANDBY	PRIME
Rated Engine Speed	rpm	1800	1800
Horsepower at Rated kW**	hp	530	477
Piston Speed	ft/min	1770	1770
BMEP	psi	313	281

** 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)	2988 (84.6)	2808 (79.5)
Max. Backpressure (Post Silencer)	inHg (Kpa)	1.5 (5.1)	1.5 (5.1)
Exhaust Temp (Rated Output)	°F (°C)	1076 (580)	1076 (580)
Exhaust Outlet Size (Open Set)	NPT (male)	88.9 (3.5)	88.9 (3.5)

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.

GENERAC | INDUSTRIAL POWER

MD350

standard features and options

GENERATOR SET

●	Genset Vibration Isolation	Std
○	IBC Seismic Certified/Seismic Rated Vibration Isolators	Opt
○	Extended warranty	Opt
○	Gen-Link Communications Software	Opt
○	Steel Enclosure	Opt
○	Aluminum Enclosure	Opt
○	Enclosure Lighting Kits	Opt

ENGINE SYSTEM

	General	
●	Oil Drain Extension	Std
○	Oil Make-Up System	Opt
○	Oil Heater	Opt
●	Air cleaner	Std
●	Fan guard	Std
●	Radiator duct adapter	Std
●	Industrial Exhaust Silencer	Std
○	Critical Exhaust Silencer	Opt

	Fuel System	
●	Fuel lockoff solenoid	Std
●	Secondary fuel filter	Std
●	Stainless steel flexible exhaust connection	Std
○	Flexible fuel lines	Opt
○	Primary fuel filter	Opt
○	Single Wall Tank (Export Only)	-
○	UL 142 Fuel Tank	Opt

	Cooling System	
○	120VAC Coolant Heater	Opt
○	208VAC Coolant Heater	Opt
●	240VAC Coolant Heater	Std
○	Other Coolant Heater	-
●	Closed Coolant Recovery System	Std
●	UV/Ozone resistant hoses	Std
●	Factory-Installed Radiator	Std
●	Radiator Drain Extension	Std

	Engine Electrical System	
●	Battery charging alternator	Std
●	Battery cables	Std
●	Battery tray	Std
○	Battery box	Opt
○	Battery heater	Opt
●	Solenoid activated starter motor	Std
○	10A UL float/equalize battery charger	Opt
●	Rubber-booted engine electrical connections	Std

ALTERNATOR SYSTEM

●	UL2200 GENprotect™	Std
●	Main Line Circuit Breaker (Output connections on paralleling switch)	Std
○	Alternator Upsizing	Opt
○	Anti-Condensation Heater	Opt
○	Tropical coating	Opt
●	Permanent Magnet Generator	Std

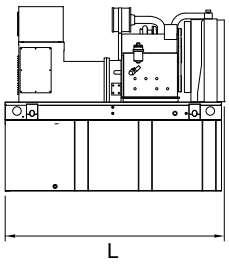
CONTROL SYSTEM

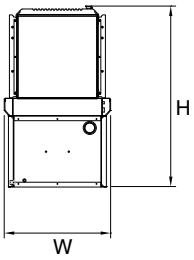
	Control Panel	
○	Digital H Control Panel - Dual 4x20 Display	na
○	Digital G-100 Control Panel - Touchscreen	na
●	Digital G-200 Paralleling Control Panel - Touchscreen	Std
●	Programmable Crank Limiter	Std
○	21-Light Remote Annunciator	Opt
○	Remote Relay Panel (8 or 16)	Opt
●	7-Day Programmable Exerciser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

	Alarms (Programmable Tolerances, Pre-Alarms and Shutdowns)	
○	Low Fuel	Opt
●	Oil Pressure (Pre-programmed Low Pressure Shutdown)	Std
●	Coolant Temperature (Pre-programmed High Temp Shutdown)	Std
●	Coolant Level (Pre-programmed Low Level Shutdown)	Std
●	Oil Temperature	Std
●	Engine Speed (Pre-programmed Overspeed Shutdown)	Std
●	Voltage (Pre-programmed Overvoltage Shutdown)	Std
●	Battery Voltage	Std

MD350

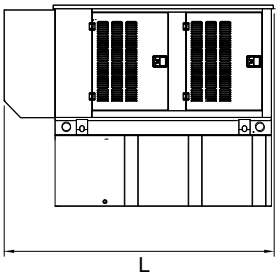
dimensions, weights and sound levels

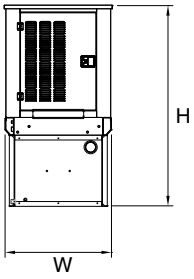




OPEN SET

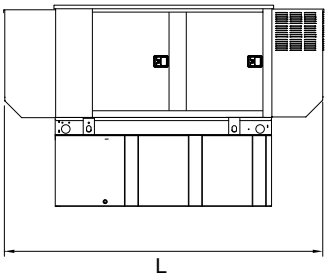
RUN TIME HOURS	USABLE CAPACITY (GAL)	L	W	H	WT	dBA*
NO TANK	-	136	58	68	6088	90
7	183	136	58	81	7036	
17	438	136	58	93	7348	
27	693	136	58	105	7651	
37	946	208	58	108	9295	
52	1325	278	58	108	10128	

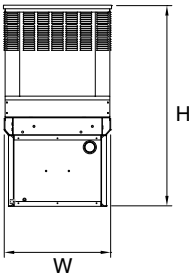




STANDARD ENCLOSURE

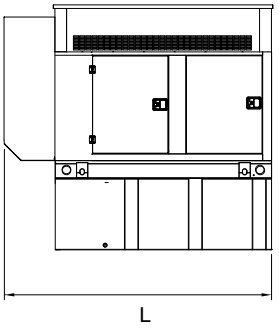
RUN TIME HOURS	USABLE CAPACITY (GAL)	L	W	H	WT	dBA*
NO TANK	-	175	58	78	8106	85
7	183	175	58	91	9054	
17	438	175	58	103	9366	
27	693	175	58	115	9669	
37	946	208	58	118	11313	
52	1325	278	58	118	12146	

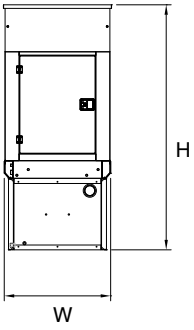




LEVEL 1 ACOUSTIC ENCLOSURE

RUN TIME HOURS	USABLE CAPACITY (GAL)	L	W	H	WT	dBA*
NO TANK	-	200	58	78	8479	77
7	183	200	58	91	9427	
17	438	200	58	103	9739	
27	693	200	58	115	10042	
37	946	234	58	118	11686	
52	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
7	183	181	58	120	8936	
17	438	181	58	132	9248	
27	693	181	58	144	9551	
37	946	208	58	147	11195	
52	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

○	MDEQ	OPT
○	Florida DERM/DEP	OPT
○	Chicago Fire Code	OPT
○	IFC Certification	CALL
○	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.

©2012 Generac Power Systems, Inc. All rights reserved. All specifications are subject to change without notice. Bulletin 0184870SBY-D / Printed in U.S.A. 02/28/12