

Mobile Gaseous Unit – Gaseous Fuel

Ratings Range – 60 Hertz Operation

Liquid Propane: kW 142 - 220
kVA 142 - 275

Natural Gas: kW 142 - 332
kVA 142 - 415

Magnum generators are available in a variety of power ratings and installation styles to meet the energy needs of the smallest businesses and the largest manufacturing facilities. All generator sets are designed to meet the specifications to ensure the fastest startup and dependable long-term operation. Rely on Magnum generators to provide the clean, quiet and environmentally friendly electrical power when you need it most. Emergency backup, standby, peak shaving or for any of your day or night electrical power needs, you can count on a dependable Magnum generator to provide the peace of mind and security you desire.

Standby Power Features

- ✓ Heavy-duty industrial gaseous fuel engine that meets the latest EPA emissions levels
- ✓ Brushless synchronous alternators with dynamic balancing and four pole construction
- ✓ Fully featured microprocessor based controller that's easy to use and field programmable for customized installations
- ✓ Generator sets are prototype tested and production tested to ensure easy startup
- ✓ Gen-set accepts rated load in one step
- ✓ Heavy duty construction that's designed for use in standby applications
- ✓ Manufactured in a dedicated and secure ISO-9001 certified facility
- ✓ Generator sets are backed by a world wide network of parts and service centers
- ✓ Optional agency approvals available including UL2200 and NFPA110
- ✓ Optional environmental enclosures available including weather resistant, sound attenuated, containerized, and walk-in models
- ✓ Full range of genset accessories and factory installed options available

Genset Ratings

Genset Model Number	Alternator	Voltage L-L / L-N	Phase	Hertz	150°C Rise Alternator Standby Rating – LP Fuel		150°C Rise Alternator Standby Rating – Natural Gas		125°C Rise Alternator Prime Rating – Natural Gas		
					kW / kVA	Amps	kW / kVA	Amps	kW / kVA	Amps	
MGG350N2	UCI274H-311	208 / 120	3	60	200 / 250	695	200 / 250	695	190 / 238	660	
		220 / 127	3	60	207 / 259	680	207 / 259	680	196 / 245	644	
		240 / 120 (1)	3	60	200 / 250	602	200 / 250	602	190 / 238	572	
		240 / 120 (1)	1	60	142 / 142	592	142 / 142	592	142 / 142	592	
		240 / 139	3	60	219 / 274	659	220 / 275	662	204 / 255	614	
		380 / 220	3	60	182 / 228	346	182 / 228	346	170 / 213	323	
		416 / 240	3	60	200 / 250	347	200 / 250	347	190 / 238	330	
		440 / 254	3	60	207 / 259	340	207 / 259	340	196 / 245	322	
	UCDI274J-311	480 / 277	3	60	219 / 274	330	220 / 275	331	204 / 255	307	
		208 / 120	3	60	217 / 271	754	230 / 288	799	215 / 269	747	
		220 / 127	3	60	217 / 271	713	240 / 300	788	224 / 280	736	
		240 / 120 (1)	3	60	217 / 271	653	230 / 288	692	215 / 269	647	
		240 / 120 (1)	1	60	161 / 161	671	161 / 161	671	161 / 161	671	
		240 / 139	3	60	217 / 271	653	255 / 319	768	240 / 300	723	
		380 / 220	3	60	210 / 263	399	210 / 263	399	200 / 250	380	
		416 / 240	3	60	217 / 271	377	230 / 288	399	215 / 269	373	
	UCDI274J-17	440 / 254	3	60	217 / 271	356	240 / 300	394	224 / 280	368	
		480 / 277	3	60	217 / 271	327	255 / 319	384	240 / 300	361	
		600 / 347	3	60	221 / 276	266	262 / 328	316	301 / 376	362	
		HCI434E-311	208 / 120	3	60	219 / 274	761	331 / 414	1150	299 / 374	1039
			220 / 127	3	60	219 / 274	719	331 / 414	1087	300 / 375	985
			240 / 120 (1)	3	60	219 / 274	659	331 / 414	997	299 / 374	900
			240 / 120 (1)	1	60	200 / 200	833	200 / 200	833	200 / 200	833
			240 / 139	3	60	220 / 275	662	332 / 415	1000	300 / 375	903
380 / 220	3		60	217 / 271	413	296 / 370	563	276 / 345	525		
416 / 240	3		60	219 / 274	380	331 / 414	575	299 / 374	519		
440 / 254	3		60	219 / 274	360	331 / 414	544	300 / 375	493		
	HCI434E-17	480 / 277	3	60	220 / 275	331	332 / 415	500	300 / 375	452	
		600 / 347	3	60	219 / 274	264	331 / 414	399	300 / 375	361	

NOTES: (1) Alternator connections have two circuits available for low voltage. Available current in each low voltage circuit is equal to high voltage current listed in table. For ratings and voltages not listed above refer to the Genset Selector. Standby ratings do not have an overload capability but can be used for the duration of the utility failure per ISO-3046, DIN6271 and BS5514. Magnum reserves the right to implement specifications or design changes without notice.

Engine Application Data

Engine Specifications

Manufacturer	NG Engine
Engine Model #	D183TIC
Engine Type	4 Cycle, 10 Cylinder
Induction System	Turbocharged/ Charge Air Cooled
Displacement, L (in ³)	18.27 (1115)
EPA Emissions Certification	40 CFR Part 60 & 1048
HP at Rated Speed BHP (kW _m) NG	503 (375)
HP at Rated Speed BHP (kW _m) Propane	337 (251)
Rated RPM	1800
Bore and Stroke in (mm)	5.04x5.59 (128x142)
Compression Ratio	10.5:1
Air Filter Type	Dry
Governor Type / Model	Electronic
Governor Manufacturer	EControls
Freq Reg NL to FL	Isochronous
Freq Reg Steady State	+/-0.5%

Engine Lubrication System

Oil Pan Capacity gal (L)	9.2 (35.0)
Oil Capacity w/Filter gal (L)	11.1 (42.1)
Oil Filter Quantity	2
Oil Filter Type	Cartridge
Oil Cooler	Water Cooled
Recommended Oil	15W-40 Low Ash
Oil Press psi (kPa)	20.3 (140)

Engine Cooling System

Genset Max Ambient Temp °F (°C)	122 (50)
Engine Coolant Cap qt (L)	44 (50.0)
Engine + Radiator System Cap qt (L)	254 (289.0)
Water Pump Type	Centrifugal
Coolant Flow gpm (Lpm)	174 (660)
Charge Air Cooler Flow cfm (cmm)	1038 (29.4)
Heat Rejected to Charge Air Cooler @ Rated kW; Btu/min (kW)	2060 (36.2)
Heat Rejected to Radiator @ Rated kW; Btu/min(kW)	20784 (365.5)
Max Restriction of Cooling Air in H ₂ O (kPa)	0.5 (0.124)

Engine Exhaust System

Exhaust Manifold Type	Wet
Exhaust Flow @ Rated kW cfm (cmm)	2366 (67.0)
Exhaust Temp (dry manifold) °F (°C)	1382 (750)
Min Back Pressure in H ₂ O (kPa)	0 (0)
Max Back Pressure in H ₂ O (kPa)	20.4 (5.1)
Exhaust Outlet Diameter in (mm)	3.5 (88.9)
Exhaust Outlet Type	Flange
Exhaust Catalyst	Included

Engine Electrical System

Charging Alternator Volts dc	24
Charging Alternator Amps	45
Grounding Polarity	Negative
Starter Motor Volts dc	24
Battery Recommendations	
Battery Volts dc	24
Min Cold Cranking Amps	900
Quantity Required	2

Ventilation Requirements

Cooling Airflow, scfm (cmm)	36000 (1020)
Combustion Airflow, cfm (cmm)	664 (18.8)
Heat Rejected to Ambient	
From Engine, Btu/min (kW)	3014 (53)
From Alternator, Btu/min (kW)	1393 (24.5)
Recommended Free Area Intake Louver Size, ft ² (m ²)	74.0 (6.88)

Engine Fuel System

Recommended Fuel	
Natural Gas min HHV (Btu/ft ³)	1015
Propane Vapor min HHV (Btu/ft ³)	2650
Fuel Supply Pressure in-H ₂ O (kPa)	7-11 (1.7-2.7)
Fuel Line At Engine	
Supply Line, npt	3

Propane Fuel Consumption – Standby Rating

100% Load cfph (m ³ ph)	1146 (32.5)
75% Load cfph (m ³ ph)	977 (27.7)
50% Load cfph (m ³ ph)	658 (18.6)
25% Load cfph (m ³ ph)	415 (11.8)

NG Fuel Consumption – Standby Rating

100% Load cfph (m ³ ph)	3499 (99.1)
75% Load cfph (m ³ ph)	2727 (77.2)
50% Load cfph (m ³ ph)	1914 (54.2)
25% Load cfph (m ³ ph)	1167 (33.0)

NG Fuel Consumption – Standby Rating

100% Load cfph (m ³ ph)	3184 (90.2)
75% Load cfph (m ³ ph)	2482 (70.3)
50% Load cfph (m ³ ph)	1742 (49.3)
25% Load cfph (m ³ ph)	1062 (30.1)

Engine Output Deratings - Standby

Rated Temp	77°F
Rated Altitude	325 ft
Max Altitude	10,000 ft
Temperature Derate	-1% / 8° F
Altitude Derate	-3% / 1000 ft

Alternator Specifications

Alternator Type	4-Pole, Rotating Field	Automatic Voltage Regulator	
Exciter Type	Brushless	PMG	MX341, MX321
Excitation System		Voltage Regulation	No Load to Full Load
PMG	Standard	Std Regulator	N/A
Insulation	per NEMA MG1	PMG Regulator	+/- 1%, +/- 0.5%
Material	Class H	Load Acceptance	100% of Rating, One Step
Standby Temp Rise	150°C		
Lead Connection	12 Lead, Reconnectable	Subtransient Reactance	
Stator Pitch	2/3	480V, Per Unit	11%, 12%
Amortisseur Winding	Full	TIF (1960 Weighting)	<50
Bearing	Single, Double Shielded	Line Harmonics	5% Maximum
Drive Coupling	Flexible Disk	Motor Starting kVA	30% Max Voltage Dip
Unbalanced Load	20% of Standby Rating	Alt @ 480V SkVA	UCDI274H-311 730 kVA
		Alt @ 480V SkVA	HCI434E-311 1040 kVA

Genset Controller Specifications

Magnum IntelliLite NT Features

Large back-lit graphical LCD Display
64x128 pixel resolution

6 LED Genset Status Indicators

Alarm	Red LED
Not In Auto	Red LED
Warning	Yellow LED
Running	Green LED
Ready / Auto	Green LED
Supplying Load	Green LED

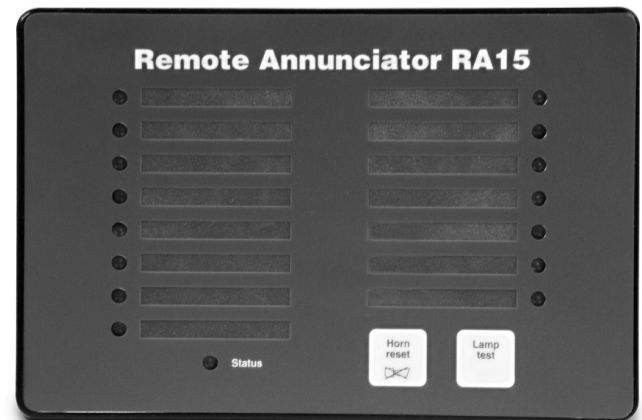
Sealed Membrane Panel to IP65

Push Buttons for Simple Control

Start, Stop, Fault Reset, Horn Reset, Mode, Page, and Enter Keys

Display Metering and Protection

Oil Pressure Warning / Shutdown
High / Low Coolant Temperature Warning
High Coolant Temperature Shutdown
Low Coolant Level Shutdown
Over Speed Protection
Battery Voltage Over / Under Warning
Running Hour Meter
Generator Under / Over Volts Warn / Shutdown
Generator Under / Over Freq Warn / Shutdown
Generator Over Current Shutdown
Generator Output Metering for V1-V3, I1-I3,
Hz, kW, kWh, kVA, kVAh



Additional Standard Genset Features

- ✓ Structural Steel Sub-Base
- ✓ Sub-Base Lifting Eyes
- ✓ Unit Mounted Radiator
- ✓ Engine Mounted Fan
- ✓ Radiator Fan Guard
- ✓ Battery Charging Alternator
- ✓ Battery Rack and Cables
- ✓ Unit Mounted Control Panel
- ✓ Spin-On Oil Filter
- ✓ Enamel Finish
- ✓ One Set - Operation / Maintenance Manual
- ✓ Factory Tested Prior to Shipment
- ✓ Limited Warranty

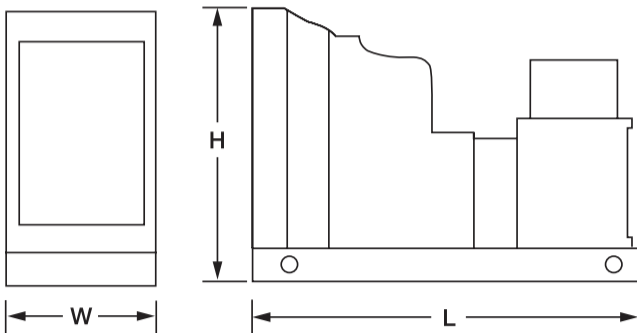
Optional Agency Approvals

- UL2200 (Review Option Availability)
- NFPA110 (Request Remote Annunciator)

Weight and Dimensions (Open Unit)

Weight – Wet lb (kg)	9070 (4114)
Overall Dimensions	Length x Width x Height
inches	143 x 72 x 97
mm	3632 x 1828 x 2463

Note: Drawing is provided for reference only.
Use engineering outline for installation planning.



Available Accessories and Options

Open Unit

- Industrial Silencer
- Residential Silencer
- Critical Silencer
- Hospital Grade Silencer
- Exhaust Flex Pipe
- Rain Cap
- Radiator Duct Flange

Enclosed Units

- Weather Resistant Enclosure
- Sound Attenuated w/Internal Critical Silencer
- ISO Container
- Walk-In Enclosure

Alternator Accessories

- AVR Upgrade
- Alternator Space Heater
- Exciter Field Circuit Breaker
- Alternator Drip Shield

Genset Accessories

- Voltage Adjust Potentiometer
- Starting Battery
- Battery Charger Auto/Float
- Auto/ Float Equalize Timer Manual Automatic
- Battery Heater
- Engine Coolant Heater
- Oil & Coolant Drain Valves (Engine/Radiator)
- Oil & Coolant Drain Extended to Base

Main Output Breaker

- Wall Mount
- Unit Mount

Transfer Switch

- Manual
- Automatic

Control Panel

- Remote Annunciator
- Remote Communications
- Remote E-Stop

Fuel System

- Fuel Strainer
- Dual Fuel Automatic Changeover

Vibration Isolators

- Elastomer Isolator
- Standard Spring
- Seismic Spring

Magnum Power Products

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