BALDOR GENERATORS

IGLC35-2G

Gaseous Fuel

Ratings Range – 60 Hertz Operation

Liquid Propane:	kW	19 - 35
	kVA	19 - 44
Natural Gas:	kW	19 - 31
	kVA	19 - 39

Baldor 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 Baldor 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 Baldor 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	
					kW / kVA	Amps	kW / kVA	Amps
IGLC35-2G	PI144G-311	208 / 120	3	60	28 / 35	97	28 / 35	97
		220 / 127	3	60	30 / 38	99	30 / 38	99
		(1) 240 / 120	3	60	31 / 39	93	31 / 39	93
		(1) 240 / 120	1	60	19 / 19	79	19 / 19	79
		240 / 139	3	60	30 / 38	90	30 / 38	90
		416 / 240	3	60	28 / 35	49	28 / 35	49
		440 / 254	3	60	30 / 38	49	30 / 38	49
		480 / 277	3	60	31 / 39	47	31 / 39	47
	PI144G-17	600 / 347	3	60	31 / 39	37	30 / 38	36
	PI144G-06	(1) 240 / 120	1	60	30 / 30	125	30 / 30	125
	PI144H-311	208 / 120	3	60	32 / 40	111	31 / 39	108
		220 / 127	3	60	32 / 40	105	31 / 39	102
		(1) 240 / 120	3	60	32 / 40	96	31 / 39	93
		(1) 240 / 120	1	60	23 / 23	96	23 / 23	96
		240 / 139	3	60	32 / 40	96	31 / 39	93
		416 / 240	3	60	32 / 40	56	31 / 39	54
		440 / 254	3	60	32 / 40	53	31 / 39	51
		480 / 277	3	60	32 / 40	48	31 / 39	47
	PI144H-17	600 / 347	3	60	35 / 44	42	30 / 38	36
	PI144H-06	(1) 240 / 120	1	60	31 / 31	129	30 / 30	125

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.
Baldor reserves the right to implement specifications or design changes without notice.

Engine Application Data

Engine Specifications

Manufacturer	General Motors
Engine Model #	3.0L
Engine Type	4 Cycle, 4 Cylinder
Induction System	Naturally Aspirated
Displacement, L (in^3)	3 (181)
EPA Emissions Certification	40 CFR Part 60/90
HP at Rated Speed BHP (kW_m) NG	50.8 (37.9)
HP at Rated Speed BHP (kW_m) Propane	51.5 (38.4)
Rated RPM	1800
Bore and Stroke in (mm)	4.00x3.60 (101.6x91.4)
Compression Ratio	8.2:1
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)	1.0 (3.8)
Oil Capacity w/Filter gal (L)	1.1 (4.1)
Oil Filter Quantity	1
Oil Filter Type	Cartridge
Recommended Oil	15W-40
Oil Press psi (kPa)	43 (296)

Engine Cooling System

Genset Max Ambient Temp °F (°C)	122 (50)
Engine Coolant Cap qt (L)	7.2 (6.8)
Engine + Radiator System Cap qt (L)	20 (18.9)
Water Pump Type	Centrifugal
Coolant Flow gpm (Lpm)	11 (41.6)
Heat Rejected to Cooling Water @ Rated kW; Btu/min (kW)	1940 (34.1)
Max Restriction of Cooling Air in H_2O (kPa)	0.5 (0.124)

Engine Exhaust System

Exhaust Manifold Type	Dry
Exhaust Flow @ Rated kW cfm (cmm)	250 (7.1)
Exhaust Temp (dry manifold) °F (°C)	1050 (565.6)
Min Back Pressure in H_2O (kPa)	0 (0)
Max Back Pressure in H_2O (kPa)	40.8 (10.2)
Exhaust Outlet Diameter in (mm)	2.5 (63.5)
Exhaust Outlet Type	O.D. Tube
Exhaust Catalyst	None Required

Engine Electrical System

Charging Alternator Volts dc	12
Charging Alternator Amps	70
Grounding Polarity	Negative
Starter Motor Volts dc	12
Battery Recommendations	
Battery Volts dc	12
Min Cold Cranking Amps	750
Quantity Required	1

Ventilation Requirements

Cooling Airflow, scfm (cmm)	7100 (201)
Combustion Airflow, cfm (cmm)	64 (1.8)
Heat Rejected to Ambient	
From Engine, Btu/min (kW)	438 (7.7)
From Alternator, Btu/min (kW)	256 (4.5)
Recommended Free Area Intake Louver Size, ft^2 (m^2)	15.0 (1.39)

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_2O (kPa)	7-11 (1.7-2.7)
Fuel Line At Engine Supply Line, npt	3/4

NG Fuel Consumption – Standby Rating

100% Load cfph (m^3ph)	430 (12.2)
75% Load cfph (m^3ph)	340 (9.6)
50% Load cfph (m^3ph)	255 (7.2)
25% Load cfph (m^3ph)	179 (5.1)

Propane Fuel Consumption – Standby Rating

100% Load cfph (m^3ph)	175 (5.0)
75% Load cfph (m^3ph)	144 (4.1)
50% Load cfph (m^3ph)	108 (3.1)
25% Load cfph (m^3ph)	74 (2.1)

Engine Output Deratings - Standby

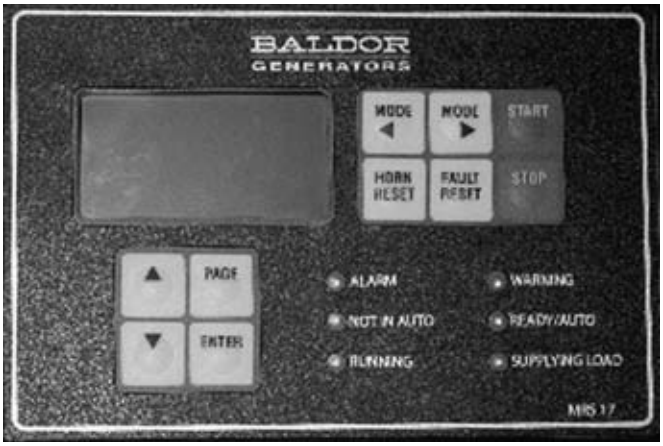
Rated Temp	77ºF
Rated Altitude	325 ft
Max Altitude	10,000 ft
Temperature Derate	-1% / 8ºF
Altitude Derate	-3% / 1000 ft

Alternator Specifications

Alternator Type	4-Pole, Rotating Field
Exciter Type	Brushless
Excitation System	
Shunt Connection	Standard
PMG	Optional
Insulation	per NEMA MG1
Material	Class H
Standby Temp Rise	150˚C
Lead Connection	12 Lead, Reconnectable
Stator Pitch	2/3
Amortisseur Winding	Full
Bearing	Single, Double Shielded
Drive Coupling	Flexible Disk
Unbalanced Load	20% of Standby Rating

Automatic Voltage Regulator		
Wound Field	AS480	
PMG	AS480 with EBS	
Voltage Regulation	No Load to Full Load	
Std Regulator	+/- 1%	
PMG Regulator	+/- 1% with EBS	
Load Acceptance	100% of Rating, One Step	
Subtransient Reactance		
480V, Per Unit	12%, 13%	
TIF (1960 Weighting)	<50	
Line Harmonics	5% Maximum	
Motor Starting kVA	30% Max Voltage Dip	
Alt @ 480V SkVA	PI144G-311	78 kVA
Alt @ 480V SkVA	PI144J-311	100 kVA

Genset Controller Specifications



Baldor InteliLite 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 Fuel Level Warning / 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, kVAr, kVAh

Additional Standard Genset Features

- ✓ Formed Steel Sub-Base
- ✓ Integral Vibration Isolation
- ✓ 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

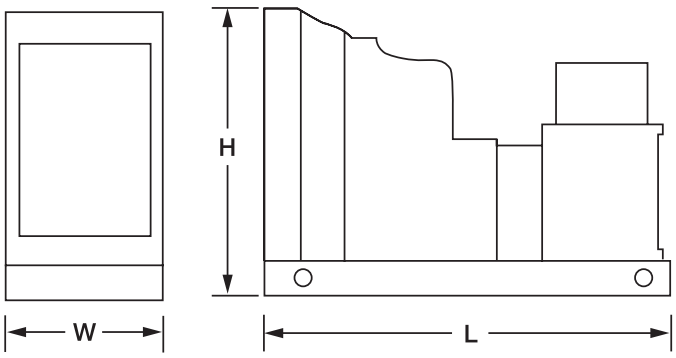
Optional Agency Approvals

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

Weight and Dimensions (Open Unit)

Weight – Wet lb (kg)	1340 (608)
Overall Dimensions	Length x Width x Height
inches	76 x 36 x 36
mm	1930 x 914 x 914

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

- ❒ PMG Exciter and 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

BALDOR GENERATORS
WORLD HEADQUARTERS
Baldor Electric Company • P. O. Box 2400 • Fort Smith, AR 72902-2400 U.S.A.
Phone (479) 646-4711 • Fax (479) 648-5792 • International Fax (479) 648-5895
www.baldor.com

© Baldor Electric Company

FM24027

Printed in U.S.A.
1/10 FARR 2000