

# IDLC1000-2M

# Diesel

# Ratings Range – 60 Hertz Operation

Standby:	kW 880 - 1000 kVA 1100 - 1250
Prime:	kW 840 - 900 kVA 1050 - 1125

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, prime power, 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 and Prime Power Features**

- ✔ Heavy-duty industrial diesel 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 prime or 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 Model Number	Alternator	Voltage L-N/L-L	Phase	Hertz	150°C Rise Standby Rating		125°C Rise Prime Rating	
					kW/kVA	Amps	kW/kVA	Amps
IDLC1000-2M		120/208	3	60	965/1206	3352	900/1125	3126
		127/220	3	60	1000/1250	3284	900/1125	2955
		(1) 120/240	3	60	965/1206	2905	900/1125	2710
		139/240	3	60	1000/1250	3011	900/1125	2710
	HCI634J-311	220/380	3	60	880/1100	1673	840/1050	1597
		240/416	3	60	965/1206	1676	900/1125	1563
		254/440	3	60	1000/1250	1642	900/1125	1478
		277/480	3	60	1000/1250	1505	900/1125	1355
	HCI634J-07	347/600	3	60	1000/1250	1204	900/1125	1084
н		120/208	3	60	1000/1250	3474	900/1125	3126
		127/220	3	60	1000/1250	3284	900/1125	2956
		(1) 120/240	3	60	1000/1250	3011	900/1125	2710
	HCI634K-311	139/240	3	60	1000/1250	3011	900/1125	2710
		220/380	3	60	985/1231	1873	900/1125	1711
		240/416	3	60	1000/1250	1737	900/1125	1563
		254/440	3	60	1000/1250	1642	900/1125	1478
		277/480	3	60	1000/1250	1505	900/1125	1355

# **Genset Ratings**

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.

Prime (Unlimited Running Time) ratings are continuous per DIN 6271 and ISO-3046 with 10% overload capacity.

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

# **Engine Application Data**

Mitsubishi S12H-Y2PTAW-1

4 Cycle, 12 Cylinder

5.91 x 6.89 (150 x 175)

Turbocharged, Inter Cooler

37.1 (2265)

1528 (1140)

Tier 2

1800

14.5:1

ECM3

Woodward

+/- 0.25%

Isochronous

Dry

### **Engine Specifications**

Manufacturer Engine Model # Engine Type Induction System

Displacement, L (in<sup>3</sup>) EPA Emissions Level HP at Rated Speed BHP (kW<sub>m</sub>) Rated RPM Bore and Stroke in(mm) Compression Ratio Air Filter Type Governor Type/Model Governor Manufacturer Freq Reg NL to FL Freq Reg Steady State

### **Engine Lubrication System**

Oil Pan Capacity gal(L)	47.6 (180.0)
Oil Pan w/Filter	52.8 (200.0)
Oil Filter Quantity	4
Oil Filter Type	Cartridge
Oil Cooler	Water Cooled
Recommended Oil	15W-40
Oil Press psi(kPa)	71 (490)

### **Engine Cooling System**

Genset Max Ambient Temp °F(°C)	113 (45)
Engine Coolant Cap qt(L)	105.7 (100.0)
Engine + Radiator System Cap qt(L)	424.0 (401.2)
Water Pump Type	Centrifugal
Coolant Flow gpm (Lpm)	383 (1449.7)
Charge Cooler Flow gpm (Lpm)	132 (499.6)
Heat Rejected to Cooling Water	
@ Rated kW; Btu/min (kW)	23715 (416.9)
Heat Rejected to Charge Cooler	
@ Rated kW; Btu/min (kW)	18633 (327.5)
Heat Rejected to Ambient Air	
@ Rated kW; Btu/min (kW)	5082 (89.3)
Max Restriction of Cooling Air	
inH <sub>2</sub> O(kPa)	0.5 (0.124)
-	

### **Engine Exhaust System**

Exhaust Manifold Type	Dry
Exhaust Flow @ Rated kW cfm(cmm)	9534 (270)
Exhaust Temp (dry manifold) °F(°C)	1015 (532)
Max Back Pressure inH <sub>2</sub> O(kPa)	23.6 (5.9)
Exhaust Outlet Diameter in(mm)	10.00 (254)
Exhaust Outlet Type	JIS250A (approx 10")



Engine Electrical System	
Charging Alternator Volts dc	24
Charging Alternator Amps	30
Grounding Polarity	Negative
Starter Motor Volts dc	24
Battery Recommendations	<u> </u>
Battery Volts dc	24
Min Cold Cranking Amps	1100
Quantity Required	4
Quantity nequired	-
Ventilation Requirements	
Cooling Airflow scfm(cmm)	50174 (1421)
Combustion Airflow cfm(cmm)	3602 (102)
Heat Rejected to Ambient	
From Engine Btu/min(kW)	5082 (89)
From Alternator Btu/min(kW)	2844 (50)
Recommended Free Area Intake	( )
Louver Size ft <sup>2</sup> (m <sup>2</sup> )	108.0 (10.04)
Engine Fuel System	
Recommended Fuel	#2 Diesel
Fuel Line at Engine	
Supply Line Min ID in(mm)	1 (25)
Return Line Min ID in(mm)	1 (25)
Fuel Pump Type	Engine Driven
Fuel Pump Max Lift ft (m)	3 (1)
Max Flow to Pump gph(Lph)	462.4 (1750.2)
Fuel Filter	
Secondary Filter	7 µm
Secondary Water Separator	Not Included
Primary Filter	Optional
Primary Water Separator	Optional
Fuel Consumption – Standby F	
100% Load gph(Lph)	77.9 (294.9)
75% Load gph(Lph)	61.6 (233.2)
50% Load gph(Lph)	42.3 (160.1)
25% Load gph(Lph)	24.3 (92.0)
Fuel Consumption – Prime Rat	tina
100% Load gph(Lph)	70.9 (268.4)
75% Load gph(Lph)	56 (212.0) <sup>´</sup>
50% Load gph(Lph)	38.5 (145.7)
25% Load gph(Lph)	22.1 (83.6)
Engine Output Deratings - St	-
Rated Temp	40°C
Rated Altitude	1500 m
Max Altitude	5000 m
- · · ·	F0/ / 100C

-5% / 10°C

-1% / 100 m

Temperature Derate

Altitude Derate



# **Alternator Specifications**

Alternator Type Exciter Type Excitation System Insulation Material Standby Temp Rise Prime Temp Rise Lead Connection Stator Pitch Amortisseur Winding Bearing Drive Coupling Unbalanced Load

4-Pole, Rotating Field Brushless PMG per NEMA MG1 Class H 150°C 125°C 12 Lead, Reconnectable 2/3 Full Single, Double Shielded Flexible Disk 20% of Standby Rating

#### Automatic Voltage Regulator PMG Std MX321 Voltage Regulation No Load to Full Load **PMG Regulator** +/-0.5%Load Acceptance 100% of Rating, One Step Subtransient Reactance 480V, Per Unit 16% TIF (1960 Weighting) <50 Line Harmonics 5% Maximum Motor Starting kVA 30% Max Voltage Dip Alt @ 480V SkVA HCI634J-311 - 3100 HCI634K-311 - 3580 Alt @ 480V SkVA

# **Genset Controller Specifications**

### **Baldor InteliGen NT Features**

Large back-lit graphical LCD Display 64x128 pixel resolution 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 Low Fuel Level Warning / Shutdown **Over Speed Protection** Battery Voltage Under/Over Warning **Running Hour Meter** Generator Under/Over Volts Warn/Shutdown Generator Under/Over Freg Warn/Shutdown Generator Over Current Shutdown Generator Output Metering for V1-V3, I1-I3, Hz, kW, kWh, kVAr, kVAh User Configurable Inputs and Outputs Up to 500 Event Based History Records Integrated PLC Programming Functions Interface to Remote Display or **Remote Annunciator** Controller capable of Both Single or Multiple Gensets Operating in Standby or Parallel Modes



NFPA110 Compliance

An optional Remote Annunciator is available to meet NFPA110 applications

Remote Annunciator Features – RA15 15 LED Indicators with Function Labels Horn Reset and Lamp Test keys CAN Bus Connection for up to 600 Feet

# Remote Annunciator RA15



# Additional Standard Genset Features

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

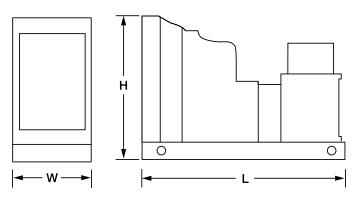
# **Optional Agency Approvals**

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

# Weight and Dimensions (Open Unit)

Weight – Wet Ib(kg) Overall Dimensions inches mm 18170 (8242) Length x Width x Height 169 x 89 x 98 4293 x 2261 x 2489

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



# **Available Accessories and Options**

### Open Unit

- Industrial Silencer
- Residential Silencer
   Super Critical Silencer
- Critical Silencer
  Exhaust Flex Pipe
  - aust 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

Auto/Float Equalize Timer D Manual D Automatic

- Battery Heater
- □ Engine Coolant Heater
- □ Oil & Coolant Drain Valves (Engine/Radiator)
- Oil & Coolant Drain Extended to Base

Transfer Switch D Manual D Automatic

### **Control Panel**

- Remote Annunciator
- Remote Communications

□ Remote E-Stop

### Fuel System and Sub-Base Fuel Tank

UL142 Double Wall with Containment

Tank Run Time @ 100% Load

□ 12-16 Hours □ 24-36 Hours

Flex Fuel Line

Primary Fuel / Water Separator

### Vibration Isolators

- Location D Under Tank D Between Tank
- □ Elastomer Isolator □ Pad Isolator
- □ Standard Spring □ Spring for Seismic Zone 4



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