

## Standby or Prime Power Features

- Heavy-duty industrial diesel engine
- Brushless synchronous alternators: four-pole construction, dynamically balanced
- Full featured microprocessor based controller: fully programmable for maximum flexibility
- Prototype tested and production tested
- Gen-set accepts rated load in one step
- UL2200 available – consult factory
- Optional weather-proof and sound attenuated enclosures available
- Full range of accessories and options available
- Heavy-duty construction for use in prime or standby application
- Manufactured in an ISO-9001 certified facility
- Backed by a world wide network of parts and service center

## Gen Set Ratings

Baldor Genset Model	kW Rating Standby	kW Rating Prime	Voltage Hi-Wye	Voltage Low-Wye	Voltage Delta	Number of Leads	Phase	Hz	Power Factor
IDLC2000-MB	2000	1750	480/277	240/139	N/A	12	3	60	0.8
IDLC2000-MC	2000	1750	440/254	220/127	N/A	12	3	60	0.8
IDLC2000-MC	2000	1750	416/240	208/120	240/120	12	3	60	0.8
IDLC2000-MC	2000	1750	380/220	N/A	N/A	12	3	60	0.8
IDLC2000-MH	2000	1750	600/347	N/A	N/A	12	3	60	0.8
IDLC2000-MXB	1775	1600	380/220	N/A	N/A	12	3	50	0.8

**NOTES:** For ratings and voltages not listed above refer to the Gen-Set Selector or consult factory  
 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  
 Base Load (Continuous) ratings are continuous per DIN 6271, BS5514 and ISO-8528 with no sustained overload capacity  
 Consult factory for Base Load ratings  
 Altitude derate is 4% for each 1000 feet over 5000  
 Temperature derate is 1% for 10°F over 100°F ambient

# Controls Digital Control Module

## MEC2 Features

- Large Backlit LCD with alpha-numeric readout
- Microprocessor Based Design
- 16 programmable alarms/shutdowns set points
- 4 programmable inputs
- Alarm horn
- Not in Automatic Alarm
- Digital Three Phase Voltage and Current Monitoring
- Password Protected Front Panel Programming
- 4 Programmable Outputs
- Local Emergency Stop Switch
- Optional NFPA110 Level I

## Engine Protections

- Digital Oil Pressure Gauge
- Digital Water Temperature Gauge
- Digital Battery Voltmeter
- Overspeed Shutdown
- Emergency Stop Shutdown
- Loss of Speed Signal
- Overcrank Shutdown

## Designed To Meet/Exceed the Standards Below:

- UL 508
- UL 2200
- NFPA 70
- NFPA 110

## Engine Technical Data

Hertz	50Hz	60 Hz		
Manufacturer	Mitsubishi	Mitsubishi		
Engine Model	S16R-Y1PTAA2-3	S16R-Y1PTAA2-1		
Engine Type	4 Cycle, Water Cooled	4 Cycle, Water Cooled		
Aspiration	Turbo-Charged, After Cooler	Turbo-Charged, After Cooler		
No. of Cylinders & Configuration	16, 60°V	16, 60°V		
Displacement - cu. in. - liters	3989 (65.37)	3989 (65.37)		
Bore and Stroke - in. - mm	6.69 X 7.09 (170 X 180)	6.69 X 7.09 (170 X 180)		
Compression Ratio	14.0:1	14.0:1		
Air Filter Type	Dry	Dry		
Governor Type	Electronic	Electronic		
Governor Make	Woodward	Woodward		
Governor Model	Woodward Pro-Act II	Woodward Pro-Act II		
Frequency Regulation, steady state	+/- 0.25%	+/- 0.25%		
Frequency Regulation, no load to full load	Isochronous	Isochronous		
Battery Voltage	24 VDC	24 VDC		
Water Pump Type	Centrifugal	Centrifugal		
Coolant Cap. - radiator cooled - qts - liters	Consult Baldor	Consult Baldor		
Coolant Capacity - engine only - gals - liters	44.9/170	44.9/170		
Oil Pan Capacity - gals - liters	37-52.8/140-200	37-52.8/140-200		
Rec'd Oil Type - SF/CC/CD-10°F to 90°F	10W-40	10W-40		
Engine Operational Values	English 50 Hz	Metric 50 Hz	English 60 Hz	Metric 60 Hz
Maximum ambient temperature - F° - C°	104/122	40/50	104/122	40/50
Heat rejected to coolant - Btu/min - kWm	35,401	622	38,999	685
Max. power at rated rpm - bhp - kWm	2599	1939	2882	2150
Coolant flow - gpm - lpm	436	1650	489	1850
Exhaust temperature - F° - C°	1001	539	966	519
Exhaust flow - cfm - m <sup>3</sup> /min	15,325	434	16,878	478
Normal oil press. range idle/run - PSI - kgf/cm <sup>2</sup>	29-43/71-93	2-3/5-6.5	29-43/71-93	2-3/5-6.5
Max fuel flow to injection pump - gph - Lph	148	560	174	660

# Gen Set Technical Data

## Alternator Technical Data

Generator Frame	7 / 744	Voltage Regulation NL - FL	+/- 0.5% 0.25%
Exciter	Brushless	Underspeed Protection	Standard
Cooling Fan	Cast alloy aluminum	Overexcitation Protection	Standard
Bearing	Single, double shielded	Overvoltage Protection	Standard
Connection Type	Reconnectable / 6 Lead	Loss of Sensing Protection	Standard
Insulation Type	Class H	Overspeed	2250 RPM
Windings	100% copper	Standards	NEMA, IEC, IEEE, CSA, BS
Pitch	2/3	Phase Sequence	A(U), B(V), C(W)
Amortisseur Winding	Full	TIF (1960 Weightings)	<50
Voltage Regulator	MX321 DVR2000	Excitation System	PMG - Standard

Alternator Performance Data	Model IDLC2000-MB	Model IDLC2000-MC	Model IDLC2000-MH
Temperature rise by resistance - °C (Stand-By)	150/40	150/40	150/40
Generator model number	HCI734H	744RSL4058	744RSS4292
Generator kW at 125/105/80°C over 40°C ambient (480 Volt , 60Hz)	2000/1840/1592	2320/2100/1760	1950/1850/1500
SkVA output with 30% voltage dip max. 100% recovery at 60 Hz	7100	8500	Consult Baldor
Maximum SkVA at 90% sustained voltage dip	Consult Baldor	Consult Baldor	Consult Baldor
Subtransient reactance at voltage listed	14.00%	7.20%	Consult Baldor
Line - line harmonic maximum total	5.00%	5.00%	5.00%

Installation/Application Data	English 50 Hz	Metric 50 Hz	English 60 Hz	Metric 60 Hz
<b>Ventilation requirements</b>				
a. Cooling airflow required - cfm - m <sup>3</sup> /min (unit mounted radiator)	88,275	2,500	88,275	2,500
b. Combustion air required - cfm - m <sup>3</sup> /min	5,791	164	6,391	181
<b>Total ventilation requirements - cfm - m<sup>3</sup>/min (a. + b.)</b>	<b>94,066</b>	<b>2,664</b>	<b>94,666</b>	<b>2,681</b>
Maximum cooling air restriction - in.H <sub>2</sub> O - in.hg	0.5	0.037	0.5	0.037
Recommended minimum intake louver size (based on "free area")	94.1	2.7	94.7	2.7
a. Heat rejected to ambient, engine - Btu/min - kWm	8,169	144	9,000	158
b. Heat rejected to ambient, generator - Btu/min - kWm	5,052	89	5,692	100
<b>Total heat rejection to ambient - Btu/min (a. + b.)</b>	<b>13,221</b>	<b>233</b>	<b>14,692</b>	<b>258</b>
<b>Exhaust system requirements</b>				
Exhaust gas flow - cfm - m <sup>3</sup> /min	15,325	434	16,878	478
Exhaust temperature (dry manifold) - °F - °C	1001	539	966	519
Maximum back pressure - in.H <sub>2</sub> O - mm H <sub>2</sub> O (inclusive of silencer)	23.6	600	23.6	600
Exhaust outlet size - in. - mm	14	356	14	356
Emissions - NO <sub>x</sub> - g/BHP-hr - g/kW-hr	Meets EPA Tier I Consult Baldor for values		5.80	7.80
Emissions - HC - g/BHP-hr - g/kW-hr			0.50	0.70
Emissions - CO - g/BHP-hr - g/kW-hr			0.60	0.80
Emissions - PM - g/BHP-hr - g/kW-hr			0.15	0.20
<b>Fuel system requirements</b>				
Fuel consumption - 1/4 load - gph - Lph	40	151	34	129
Fuel consumption - 1/2 load - gph - Lph	69	261	61	231
Fuel consumption - 3/4 load - gph - Lph	101	382	90	341
Fuel consumption - Full load - gph - Lph	135	511	122	462
<b>Heat Exchanger Cooling system requirements</b>				
Minimum raw water (city water) flow - gpm - lps	Consult Baldor		Consult Baldor	
Maximum supply water temperature - °F - °C				
<b>Remote Cooling system requirements</b>				
Maximum coolant static head - ft. - m	Consult Baldor		Consult Baldor	
Ventilation required (based on 25°F temp rise) - cfm - lps				

# Accessories and Options

## Control Panel

- Louver Relay – 10 Amp
- Run Relay – 10 Amp
- Dry Contacts For Alarms
- Remote E-Stop
- Control Panel Heater
- Tachometer
- Remote Annunciator
- Remote Communication
- Panel Lights w/Switch
- Generator Voltage Adjust
- Modem For Remote Communication

## Engine Exhaust System

- Industrial Silencer
- Residential Silencer
- Critical Silencer
- Exhaust Flex
- Exhaust Extension
- Rain Cap
- \_\_\_\_\_

## Generator Accessories

- Main Line Circuit Breaker
- Exciter Field Circuit Breaker
- Ground Fault Module w/Breaker Shunt Trip
- Ground Fault Module w/o Breaker Shunt Trip
- Reconnectable Link Bars
- Drip Cover IP22
- Manual Voltage Control
- Space Heater
- RTD's Stator Windings
- RTD's Bearing (Rear)
- PMG
- MVC300 Manual Voltage Control

## Engine Electrical System

- Batteries
- Battery Rack
- Battery Cables
- Battery Charger - Automatic
- Battery Charger - Trickle
- \_\_\_\_\_

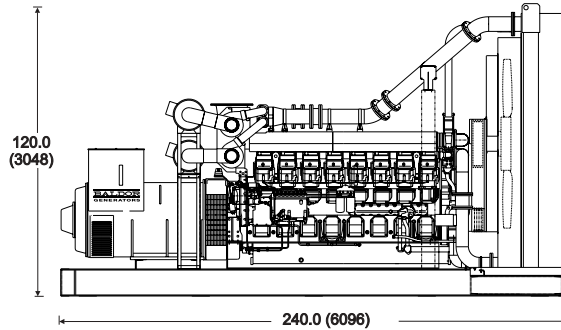
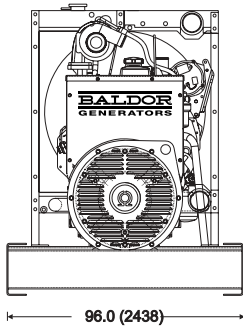
## Engine Fuel System

- Day Tank
- Sub-Base Fuel Tank
- Storage Tank
- Flexible Fuel Lines
- \_\_\_\_\_

## Miscellaneous

- Weather Proof Enclosure
- Sound Attenuated Enclosure
- Trailer Mounted
- Vibration Isolators
- Coolant Heater
- Oil Heater
- Bypass Oil Filter
- Export Crating

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
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Dimensions – in (mm)

Weight – lbs. (Kg)  
26,495 (12018)

Cubes (Approximate)  
1600 ft

\*Open unit configuration,  
accessories not included

*Distributed by:*

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