

Standby or Prime Power Features

- Heavy-duty diesel engine
- PMG Excitation System to provide 300% rated current for a minimum of ten seconds to selectively trip breakers (std on 800 kW and up)
- Aluminum die cast rotor core providing high mechanical integrity and low vibration at operating speed (std on 800 kW and up)
- Solid state CMOS controls feature full adjustability for maximum flexibility
- Prototype tested per NFPA 110
- Heavy-duty construction for use in prime or standby application

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
IDLC500-DA	500	460	480/277	240/139	N/A	12	3	60	0.8
IDLC500-DB	500	460	440/254	220/127	N/A	12	3	60	0.8
IDLC500-DC	500	460	416/240	208/120	240/120	12	3	60	0.8
IDLC500-DC	500	460	380/190	N/A	N/A	12	3	60	0.8
IDLC500-DH	500	460	600/347	N/A	N/A	12	3	60	0.8
IDLC500-DXB	400	360	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 104°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

Manufacturer	Detroit
Engine Model	8V2000 - R0837K36
Engine Type	4 cycle, 8 cylinders
Engine Horsepower	765
Aspiration	Turbocharged
No. of Cylinders & Configuration	V-8
Displacement - cu. in. (liters)	973 (16)
Bore and Stroke - in. (mm)	5.12 x 5.91 (130 x 150)
Compression Ratio	14.5:1
Air Filter Type	Dry
Governor Type	Electronic
Governor Make	DDC
Governor Model	DDEC
Frequency Regulation, steady state	.25%
Frequency Regulation, no load to full load	Isochronous
Battery Voltage	.24 VDC
Water Pump Type	Centrifugal
Coolant Cap. - radiator cooled - qts - liters	136 (129)
Coolant Capacity - engine only - gals - liters	11.5 (43.5)
Oil Pan Capacity - gals - liters	6.5-8 (25-30)
Rec'd Oil Type - SF/CC/CD-10°F to 90°F	15W-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	9600	169	11550	203
Max. power at rated rpm - bhp - kWm	610	455	765	571
Coolant flow - gpm - lpm	156	9.8	187	11.8
Exhaust temperature - F° - C°	874	468	981	527
Exhaust flow - cfm - m ³ /min	3182	1502	4089	1930
Normal oil press. range idle/run - PSI - kgf/cm ²	42	276	52	358
Max fuel flow to injection pump - gph - Lph	156	591	187	707

Gen Set Technical Data

Alternator Technical Data

Generator Frame	5	Voltage Regulation NL - FL	+/- 1.0%
Exciter	Brushless	Underspeed Protection	Standard
Cooling Fan	Cast alloy aluminum	Overexcitation Protection	Standard
Bearing	Single, double shielded	Overvoltage Protection	Standard
Connection Type	Reconnectable	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	SX440	Excitation System	PMG - Optional

Alternator Performance Data

	Model IDLC500-DA	Model IDLC500-DB	Model IDLC500-DC	Model IDLC500-DH
Temperature rise by resistance - °C (Stand-By)	150/40	150/40	150/40	150/40
Generator model number	HCI544C	HCI544D	HCI544E	HCI544C
Generator kW at 125/105/80°C over 40°C ambient (480 Volt , 60Hz)	475/430/376	515/470/412	600/540/475	475/430/376
SkVA output with 30% voltage dip max. 100% recovery at 60 Hz	1100	1300	1500	1100
Maximum skva at 90% sustained voltage dip	Consult Factory	Consult Factory	Consult Factory	Consult Factory
Subtransient reactance at voltage listed	11.00%	10.00%	10.00%	11.00%
Line - line harmonic maximum total	5.00%	5.00%	5.00%	5.00%

Installation/Application Data

	English 50 Hz	Metric 50 Hz	English 60 Hz	Metric 60 Hz
Ventilation requirements				
a. Cooling airflow required - cfm - m ³ /min (unit mounted radiator)	25414	11995	30497	14395
b. Combustion air required - cfm - m ³ /min	1229	580	1458	688
Total ventilation requirements - cfm - m³/min (a. + b.)	26643	12575	31955	15083
Maximum cooling air restriction - in.H ₂ O - in.hg	0.5	0.037	0.5	0.037
Recommended minimum intake louver size (based on "free area")	26.64	2.48	31.96	2.97
a. Heat rejected to ambient, engine - Btu/min - kWm	9600	169	11550	203
b. Heat rejected to ambient, generator - Btu/min - kWm	1423	25	1423	25
Total heat rejection to ambient - Btu/min (a. + b.)	11023	194	12973	228

Exhaust system requirements

Exhaust gas flow - cfm - m ³ /min	3182	1502	4089	1930
Exhaust temperature (dry manifold) - °F - °C	874	468	981	527
Maximum back pressure - in.H ₂ O - mm H ₂ O (inclusive of silencer)	3	10.2	3	10.2
Exhaust outlet size - in. - mm	5	127	5	127
Emissions - NO _x - g/BHP-hr - g/kW-hr	Consult Baldor for Actual Values		6.80	5.07
Emissions - HC - g/BHP-hr - g/kW-hr			0.23	0.17
Emissions - CO - g/BHP-hr - g/kW-hr			0.63	0.47
Emissions - PM - g/BHP-hr - g/kW-hr			0.05	0.04

Fuel system requirements

Fuel consumption - 1/4 load - gph - Lph	8	30	10	38
Fuel consumption - 1/2 load - gph - Lph	14	53	18	68
Fuel consumption - 3/4 load - gph - Lph	21	79	27	102
Fuel consumption - Full load - gph - Lph	30	114	38	144

Heat Exchanger Cooling system requirements

Minimum raw water (city water) flow - gpm - lps	Consult Factory
Maximum supply water temperature - °F - °C	

Remote Cooling system requirements

Maximum coolant static head - ft. - m	Consult Factory
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

Generator Electrical System

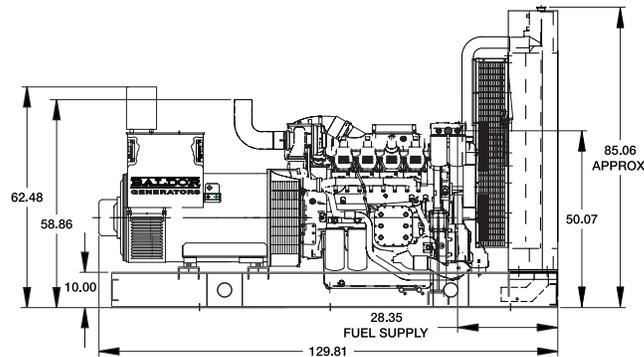
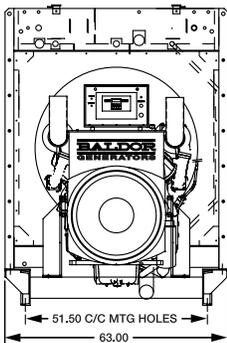
- Batteries
- Battery Rack
- Battery Cables
- Battery Charger - Automatic
- Battery Charger - Trickle
- _____

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
- _____
- _____
- _____
- _____
- _____



Dimensions – in (mm)

Weight – lbs. (Kg)
9024 (4093)

Cubes (Approximate)
410 ft

*Open unit configuration,
accessories not included

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