

## Standby or Prime Power Features

- Heavy-duty diesel engine
- Solid state CMOS controls feature full adjustability for maximum flexibility
- PMG Excitation System to provide 300% rated current for a minimum of ten seconds to selectively trip breakers (std on 800 kW and up)
- Prototype tested per NFPA 110
- Aluminum die cast rotor core providing high mechanical integrity and low vibration at operating speed (std on 800 kW and up)
- 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
IDLC300-DA	300	270	480/277	240/139	N/A	12	3	60	0.8
IDLC300-DA	300	270	440/254	220/127	N/A	12	3	60	0.8
IDLC300-DB	300	270	416/240	208/120	240/120	12	3	60	0.8
IDLC300-DC	300	270	380/190	N/A	N/A	12	3	60	0.8
IDLC300-DH	300	270	600/347	N/A	N/A	12	3	60	0.8
IDLC300-DXB	275	235	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	Series 60 (12.7L) - 6063TK35			
Engine Type	4 cycle, 6 cylinders			
Engine Horsepower	490			
Aspiration	Turbocharged			
No. of Cylinders & Configuration	In-line			
Displacement - cu. in. (liters)	778 (12.7)			
Bore and Stroke - in. (mm)	5.12 x 6.30 (130 x 160)			
Compression Ratio	15.0:1			
Air Filter Type	Dry			
Governor Type	Electronic			
Governor Make	DDC			
Injection Pump Type/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)	30 (28)			
Coolant Capacity - engine only - gals (liters)	6 (22.71)			
Oil Pan Capacity - gals (liters)	6.5-8 (25-30)			
Rec'd Oil Type - SF/CC/CD-10°F to 90°F	15W-40			
<b>Engine Operational Values</b>	<b>English 50 Hz</b>	<b>Metric 50 Hz</b>	<b>English 60 Hz</b>	<b>Metric 60 Hz</b>
Maximum ambient temperature - F° - C°	104/122	40/50	104/122	40/50
Heat rejected to coolant - Btu/min - kWm	6900	121	7750	136
Max. power at rated rpm - bhp - kWm	430	321	490	366
Coolant flow - gpm - lpm	79.5	5	96	6.1
Exhaust temperature - F° - C°	830	443	780	416
Exhaust flow - cfm - m <sup>3</sup> /min	2183	1030	2562	1209
Normal oil press. range idle/run - PSI - kgf/cm <sup>2</sup>	12/50	83-345	12/50	83-345
Max fuel flow to injection pump - gph - Lph	73	276	66	250

# Gen Set Technical Data

## Alternator Technical Data

Generator Frame	4	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 IDLC300-DA	Model IDLC300-DB	Model IDLC300-DC	Model IDLC300-DH
Temperature rise by resistance - °C (Stand-By)	150/40	150/40	150/40	150/40
Generator model number	HCI444D	HCI444E	HCI444F	HCI444D
Generator kW at 125/105/80°C over 40°C ambient (480 Volt , 60Hz)	300/272/236	335/305/268	380/350/308	300/272/236
SkVA output with 30% voltage dip max. 100% recovery at 60 Hz	730	850	1200	730
Maximum skva at 90% sustained voltage dip	Consult Factory	Consult Factory	Consult Factory	Consult Factory
Subtransient reactance at voltage listed	13.00%	12.00%	10.00%	13.00%
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
<b>Ventilation requirements</b>				
a. Cooling airflow required - cfm - m <sup>3</sup> /min (unit mounted radiator)	19923	9403	23908	11285
b. Combustion air required - cfm - m <sup>3</sup> /min	875	413	1070	505
<b>Total ventilation requirements - cfm - m<sup>3</sup>/min (a. + b.)</b>	<b>20798</b>	<b>9816</b>	<b>24978</b>	<b>11790</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")	21	2	25	2
a. Heat rejected to ambient, engine - Btu/min - kWm	6450	113	7750	136
b. Heat rejected to ambient, generator - Btu/min - kWm	854	15	854	15
<b>Total heat rejection to ambient - Btu/min (a. + b.)</b>	<b>7304</b>	<b>128</b>	<b>8604</b>	<b>151</b>

## Exhaust system requirements

Exhaust gas flow - cfm - m <sup>3</sup> /min	2183	1030	2562	1209
Exhaust temperature (dry manifold) - °F - °C	830	443	780	416
Maximum back pressure - in.H <sub>2</sub> O - mm H <sub>2</sub> O (inclusive of silencer)	2.1	7.1	3	10.2
Exhaust outlet size - in. - mm	5	127	5	127
Emissions - NO <sub>x</sub> - g/BHP-hr - g/kW-hr	Consult Factory for Actual Values		6.56	4.89
Emissions - HC - g/BHP-hr - g/kW-hr			0.07	0.05
Emissions - CO - g/BHP-hr - g/kW-hr			0.39	0.29
Emissions - PM - g/BHP-hr - g/kW-hr			0.36	0.27

## Fuel system requirements

Fuel consumption - 1/4 load - gph - Lph	5	19	6	23
Fuel consumption - 1/2 load - gph - Lph	9	34	11	43
Fuel consumption - 3/4 load - gph - Lph	13	50	17	63
Fuel consumption - Full load - gph - Lph	17	65	22	84

## 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

## Engine Electrical System

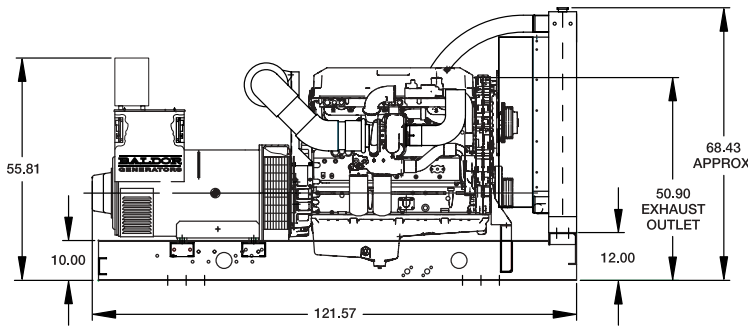
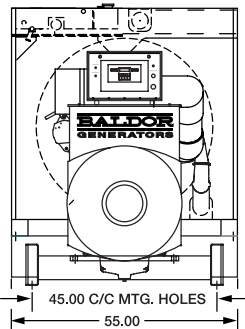
- Batteries
- Battery Rack
- Battery Cables
- Battery Charger - Automatic
- Battery Charger - Trickle
- \_\_\_\_\_

## 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
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_



Dimensions – in (mm)

Weight – lbs. (Kg)  
6546 (2969)

Cubes (Approximate)  
270 ft

\*Open unit configuration,  
accessories not included

*Distributed by:*

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