

## Standby or Prime Power Features

- Heavy-duty Cummins 4-stroke gas engine, water-cooled
- Brushless synchronous alternators: four-pole construction, dynamically balanced
- Full featured microprocessor based controller: fully programmable for maximum flexibility
- Prototype tested and production tested
- 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 centers

## Gen Set Ratings

Baldor Genset Model	kW Rating Standby	kW Rating Prime	kW Rating Standby	kW Rating Prime	Voltage Hi-Wye	Voltage Low-Wye	Voltage Delta	Number of Leads	Phase	Hz	Power Factor
	Natural Gas 10.5:1		LP Gas 8.5:1								
IGLC125N/L-CA	125	110	125	110	480/277	240/139	N/A	12	3	60	0.8
IGLC125N/L-CA	125	110	125	110	440/254	220/127	N/A	12	3	60	0.8
IGLC125N/L-CA	125	110	125	110	416/240	208/120	240/120	12	3	60	0.8
IGLC125N/L-CB	125	110	125	110	380/220	N/A	N/A	12	3	60	0.8
IGLC125N/L-CE	125	110	125	110	N/A	N/A	240/120	4	1	60	1.0
IGLC125N/L-CH	125	110	125	110	600/347	N/A	N/A	12	3	60	0.8
IGLC125N/L-CXA	105	95	105	95	380/220	N/A	220/110	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

Manufacturer	Cummins
Engine Model	GTA8.3-G1
Engine Type	4 cycle, 6 cylinders
Aspiration	Turbocharged & Aftercooled
Configuration	In-line
Displacement - cu. in. (liters)	405.4 (8.27)
Bore and Stroke - in. (mm)	4.49 x 5.31 (114 x 135)
Compression Ratio	10.5:1 (8.5:1)
Air Filter Type	Dry
Governor Type	Electronic
Governor Model	Woodward Flowtech
Injection Pump Type/Model	75 mm
Frequency Regulation, steady state	+/- 0.25%
Frequency Regulation, no load to full load	Isochronous
Battery Voltage	24 VDC
Water Pump Type	Centrifugal
Coolant Cap. - radiator cooled - gals - liters	91.4 (86.5)
Coolant Capacity - engine only - gals - liters	11.5 (10.9)
Oil Pan Capacity - gals - liters	4-5 (15-18)
Rec'd Oil Type - SF/CC/CD-10°F to 90°F	10W-40

Engine Operational Values	English 50 Hz	Metric 50 Hz	English 60 Hz	Metric 60 Hz
Maximum ambient temperature - F° - C°	100	38	100	38
Heat rejected to coolant - Btu/min - kW	5,575	98	6,736	118
Heat rejected to aftercooler - Btu/min - kW	597	10	722	13
Max. power at rated rpm - bhp - kWm	165	123	204	152
Coolant flow - gpm - lpm	N/A	N/A	55	208
Exhaust temperature - F° - C° (maximum)	1,375	746	1,375	746
Exhaust flow - cfm - m <sup>3</sup> /min	918	433	1,218	575
Gas pressure required - in. H <sub>2</sub> O - mm H <sub>2</sub> O	10 -20	254 - 508	10 -20	254 - 508
Minimum pipe size @ engine - in. - mm	2	51	2	51
Normal oil pressure high - PSI - kPa	50-70	345-483	50-70	345-483

# Gen Set Technical Data

## Alternator Technical Data

Generator Frame	274	Voltage Regulation NL - FL	1.50%
Exciter	Brushless	Underspeed Protection	Standard
Cooling Fan	Cast alloy aluminum	Overexcitation Protection	Optional
Bearing	Single, double shielded	Overvoltage Protection	Optional
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	SX460	Excitation System	Shunt – PMG Optional

## Alternator Performance Data

	Model IGLC125N/L-CA	Model IGLC125N/L-CB	Model IGLC125N/L-CD	Model IGLC125N/L-CH
Temperature rise by resistance - °C (Stand-By)	150/40	150/40	150/40	150/40
Generator model number	UCI274E	UCI274F	UCI274H	UCI274E
Generator kW at 130/105/80°C over 40°C amb. (480 Volt , 60Hz)	143/128/110	165/150/128	204/188/163	143/128/110
SKVA output with 30% voltage dip max. 100% recovery at 60 Hz	380	420	590	380
Maximum skva at 90% sustained voltage dip	Consult Factory	Consult Factory	Consult Factory	Consult Factory
Subtransient reactance at voltage listed	14.00%	12.00%	11.00%	14.00%
Line - line harmonic maximum total	3.50%	3.50%	3.50%	3.50%

## Installation/Application Data

	English 50 Hz	Metric 50 Hz	English 60 Hz	Metric 60 Hz
<b>Ventilation requirements</b>				
a. Cooling airflow required - cfm - l/s (unit mounted radiator)	16,000	7,552	16,000	7,552
b. Combustion air required - cfm - l/s	338	160	450	212
Total ventilation requirements - cfm - l/s (a. + b.)	16,338	7,712	16,450	7,764
Maximum cooling air restriction - in.H2O - mm.H2O	0.5	13	0.5	13
Minimum intake louver size (based on "free area") ft2 - m2	16	1.5	16	1.5
a. Heat rejected to ambient, engine - Btu/min - kW	697	12	842	15
b. Heat rejected to ambient, generator - Btu/min - kW	701	12	866	15
Total heat rejection to ambient - Btu/min - kW (a. + b.)	1,398	25	1,708	30

## Exhaust system requirements

Exhaust gas flow - cfm - m3/min	918	433	1,218	575
Exhaust temperature (dry manifold) - °F - °C	1,375	746	1375	746
Maximum back pressure - in.hg - mm.hg (inclusive of silencer)	2	50.8	2	50.8
Exhaust outlet size - in. - mm	3.5	88.9	3.5	88.9
Emissions - HC - g/hp-hr	Consult Factory		2.87	
Emissions - CO - g/hp-hr	Consult Factory		9.52	
Emissions - NOX - g/hp-hr	Consult Factory		3.24	

## Fuel system requirements – see engine operational values for gas pressure requirements

Fuel consumption - 1/4 load - cu.ft/hr - BTU/Hp-hr (natural gas)	538	424	646	509
Fuel consumption - 1/2 load - cu.ft/hr - BTU/Hp-hr (natural gas)	987	777	1,185	932
Fuel consumption - 3/4 load - cu.ft/hr - BTU/Hp-hr (natural gas)	1,286	1,012	1,544	1,215
Fuel consumption - Full load - cu.ft/hr - BTU/Hp-hr (natural gas)	1,496	1,177	1,795	1,413

Conversions: Cubic feet of Natural Gas/2.644 = Cubic Feet of LPG and Cubic Feet of LPG/8.533 = Gallons of LPG per hour - "estimated"

## Heat Exchanger Cooling system requirements

Minimum raw water (city water) flow - gpm/lps	Consult Factory	Consult Factory	Consult Factory	Consult Factory
Maximum supply water temperature - °F - °C	80°F	12.44°C	80°F	12.44°C

## Remote Cooling system requirements

Maximum coolant static head - ft. - m	60	18	60	18
Ventilation required (based on 25°F temp rise) - cfm - lps	3,106	55	3,796	67

# Accessories and Options

## Control Panel

- High Coolant Temp. Pre-alarm
- Low Oil Pressure Pre-alarm
- Alarm Horn with Switch
- Remote Start-Stop
- Remote Annunciator

PER NFPA 110

- Run Relay
- Dry Contacts

## Engine Exhaust System

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

## Generator Accessories

- Main Line Circuit Breaker
- Shunt Trip
- Alternator Heater
- Field Circuit Breaker
- PMG
- \_\_\_\_\_

## Engine Electrical System

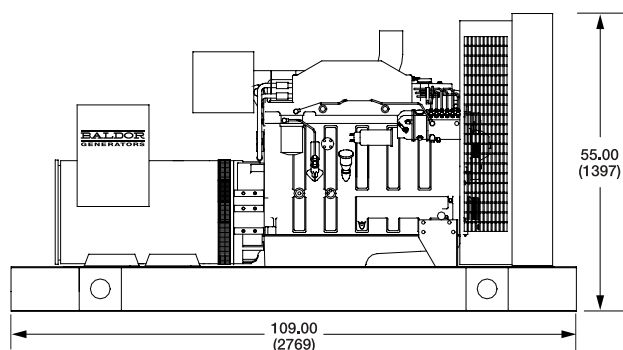
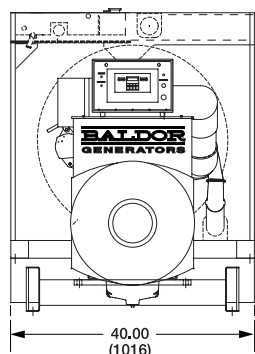
- Batteries
- Battery Rack
- Battery Cables
- Battery Charger - Automatic
- Battery Charger - Trickle
- \_\_\_\_\_

## Engine Fuel System

- Flexible Fuel Lines
- \_\_\_\_\_

## Miscellaneous

- Weather protective Enclosure
- Sound Attenuated Enclosure
- Vibration Isolators
- Coolant Heater
- \_\_\_\_\_



Dimensions – in (mm)

Weight – lbs. (Kg)  
3840 (1742)

Cubes (Approximate)  
139 ft

\*Open unit configuration,  
accessories not included

**Ratings – Standby Ratings:** Standby ratings are applicable for supplying emergency power for the duration of a utility power outage. Primary power to the installation is utility supplied. No overload capability for standby rating. Standby ratings in accordance with ISO 3046, BS55114, DIN 6271. **Continuous Power Rating:** Continuous power is the maximum power available for continuous duty. A 10% overload capacity is available for 1 hour out of 12 hours of operation. Prime Power ratings in accordance with ISO 3046, BS55114, DIN 6271. For additional information, please consult factory. Manufacture reserves the right to implement specifications or design changes without notice.

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