

# ENI 280 BIOGAS

Continuous Duty Synchronous Generator



## Production Specifications (Preliminary)

Model Number: ENI-0280A-RWSOSA

Net Electrical Output		kW	280
Net Electrical Efficiency		%	32
Pkg Efficiency w/ Thermal Heat recovery		%	86
Heat Rate (Rated, LHV)		Btu/kWh (kJ/kWh)	10,664 (11,251)
Engine/Generator Type			Continuous Duty Synchronous
Shaft BHP	@ ISO	hp (kW)	396 (295)
Operating Speed		rpm	1800
Output Voltage		Vac	277/480 3 Phase 60 Hz
Emissions	NOx	g/bhp-hr	2.06
	CO	g/bhp-hr	1.34
Sound Level		dB(A)	70 @ 1 meter
Operating Capability			Blackstart capable in either isolated or grid parallel
Power Quality	THD		Meets IEEE 519
	Load Unbalance	%	10% (max)
	Overload	%	10% overload allowed 2hr / 24
	Voltage Regulation Adjustment	%	+/-0.5
Fuel Supply	Types		BIOGAS
	Fuel(LHV)	MMBtu/hr (GJ/hr)	2.985 (3.149)
		ft <sup>3</sup> /hr (m <sup>3</sup> /hr)	4,975 (140)
	Supply Pressure	psig (bar)	0.80 - 5.00 (0.05 - 0.34)
	Fuel Standard (LHV)	Btu/ ft <sup>3</sup> (KJ/m <sup>3</sup> )	600 (26,827)
Enclosure	Length	in (mm)	132 (3,353)
	Width	in (mm)	60 (1,524)
	Height	in (mm)	84 (2,134)
	Weight	lbs (kg)	12,000 (5,443)
			Completely weatherproof All units fully lockable
Heat Recovery (CHP)			
Water Flow		gpm (L/m)	200 (760)
Water Temp. (out)		deg F (deg C)	187 (86)
Water Temp. (in)		deg F (deg C)	170 (77)
Total Heat Recovery		MMBtu/hr (kW)	1,612 (472)
Warranty			18 months from delivery or 1 year from initial start up whichever comes first.
			Extended warranty option available.
Standards			UL 2200 Expected

Notes: These specifications represent the design data as of the publication date listed in the lower right hand corner and may be changed without notice. Please contact I Power Energy Systems LLC for the most current specifications.

1. All data based on ISO standard conditions of 29.54 in Hg barometric pressure, 77 deg F ambient and induction air temperatures, 30% rel. humidity.
2. Dimensions and weights do not include optional equipment.
3. The values in this specification subject to a tolerance of +/- 5%
4. Efficiency and performance values represent the base unit operating at 100% heat and electrical power. Data is taken at the connection points of the unit.

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## BIOGAS Specification

Fuel Standard LHV	600 BTU/cu ft (min)
Sulfur Compounds Siloxanes	0.1% (1000 ppm) 25 ug/Liter
No Liquid Water Oil Droplet Solid Particle Free Hydrogen	100% Re. Hum. < 0.3 micron < 5 micron 12% by volume
Fuel Temperature	-20 deg F to 140 deg F -29 deg C to 60 deg C