

General Electric Model PG7121EA Gas Turbine

Estimated Performance - Configuration: DLN Combustor

Compressor Inlet Conditions 59 F (15 C), 60% Relative Humidity
Atmospheric Pressure 14.7 psia (1.013 bar)

Fuel:			Natural Gas	Distillate
Design Output	kW		84360	82890
Design Heat Rate (LHV)	Btu/kWh (kJ/kWh)		10480 (11050)	10570 (11150)
Design Heat Cons (LHV)	Btu/h (kJ/h)x10 ⁶		884.1 (932.5)	876.1 (924.2)
Design Exhaust Flow	lb/h (kg/h)x10 ³		2361 (1071)	2368 (1074)
Exhaust Temperature	deg. F (deg. C)		998 (536.7)	999 (537.2)
Load			Base	Base

Notes:

- Altitude correction on curve 416HA662 Rev A.
- Ambient temperature correction on curve 522HA283 Rev 2.
- Effect of modulating IGV's on exhaust temperature and flow on curve 522HA284 Rev 2.
- Humidity effects on curve 498HA697 Rev. B - all performance calculated with a constant specific humidity of .0064 or less as not to exceed 100% relative humidity.
- Plant Performance is measured at the generator terminals and includes allowances for the effects of inlet bleed heating, exitation power, shaft driven auxiliaries, and 3.5 in H₂O (7.29 mbar) inlet and 5.5 in H₂O (13.70 mbar) exhaust pressure drops and a DLN Combustor.
- Additional inlet and exhaust pressure loss effects:

	% Effect on		Effect on
	Output	Heat Rate	Exhaust Temp.
4 in Water (10.0 mbar) inlet	-1.40	0.42	1.9F (1.0C)
4 in Water (10.0 mbar) exhaust	-0.42	0.40	1.8F (1.0C)

