



7HA.03

THE NEXT EVOLUTION OF THE HA GAS TURBINE

GE's 7HA.03 gas turbine is the next evolution of the HA. It is the world's largest, most efficient and flexible gas turbine with the lowest cost conversion of gas to electricity for 60 Hz customers.

POWERFUL

Offering power producers the highest capacity 60 Hz gas turbine, 430 MW simple cycle output and the largest combined cycle block of power: 640 MW (1x1) and 1,282 MW (2x1).

EFFICIENT

Unmatched at >64% in combined cycle configuration and offering customers the lowest \$/kwh conversion of gas to electricity.

FLEXIBLE

Full GT load in 10 minutes, full CC plant load in <30 minutes, 75 MW/min ramp rate and double the fuel flexibility of 7HA.02. An ideal complement to intermittent renewable sources.

BENEFITS

- The 14-stage compressor increases airflow enabling greater nominal and hot day output
- The combustion system's advanced pre-mixer and axial fuel staging offer a step change in fuel flexibility
- A 15% park mode enables customers to minimize fuel burn and plant shutdown/startup costs during periods of low demand while providing a faster ramp to full load

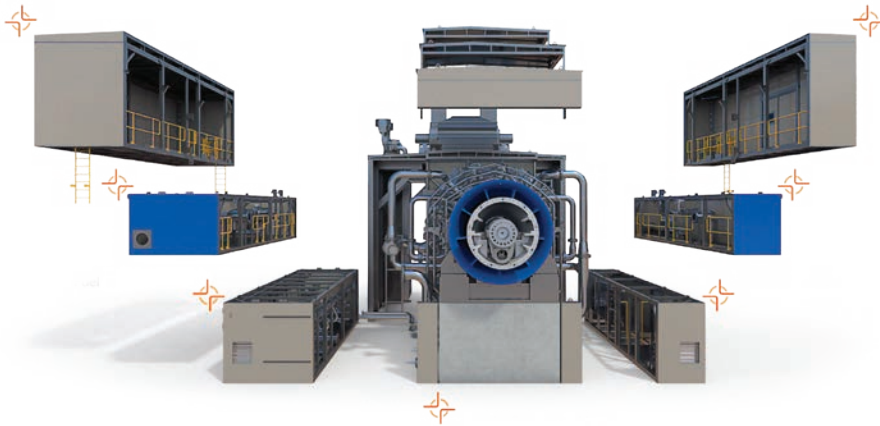


READY TODAY. REINVENTING TOMORROW.

www.ge.com/power/7HA03

7HA.03

THE NEXT EVOLUTION OF THE HA GAS TURBINE



The 7HA.03 gas turbine modular packaging configuration shortens the critical path installation cycle by eight weeks.

98%
REDUCTION
IN FIELD-INSTALLED VALVES

64%
REDUCTION
IN ELECTRICAL
TERMINATION POINTS

63%
REDUCTION
IN FIELD CONNECTIONS

55%
REDUCTION
IN TURBINE FIELD WELDS

GE'S HA TECHNOLOGY WORLD RECORDS:

- 63.08% gross CC efficiency at Chubu Electric's Nishi Nagoya power plant in Japan (7HA.01, 60 Hz)
- 62.22% net CC efficiency at EDF's Bouchain power plant in France (9HA.01, 50 Hz)

	7HA.01	7HA.02	7HA.03	
SC Plant Performance	SC Net Output (MW)	290	384	430
	SC Net Heat Rate (Btu/kWh, LHV)	8,120	8,009	7,897
	SC Net Heat Rate (kJ/kWh, LHV)	8,567	8,450	8,332
	SC Net Efficiency (% LHV)	42.0%	42.6%	43.2%
1x CC Plant Performance	CC Net Output (MW)	438	573	640
	CC Net Heat Rate (Btu/kWh, LHV)	5,481	5,381	5,342
	CC Net Heat Rate (kJ/kWh, LHV)	5,783	5,677	5,636
	CC Net Efficiency (% LHV)	62.3%	63.4%	63.9%
	Plant Turndown - Minimum Load (%)	33.0%	33.0%	33.0%
	Ramp Rate (MW/min)	55	60	75
	Startup Time (RR Hot, Minutes)	<30	<30	<30
2x CC Plant Performance	CC Net Output (MW)	880	1,148	1,282
	CC Net Heat Rate (Btu/kWh, LHV)	5,453	5,365	5,331
	CC Net Heat Rate (kJ/kWh, LHV)	5,753	5,660	5,624
	CC Net Efficiency (% LHV)	62.6%	63.6%	64.0%
	Plant Turndown - Minimum Load (%)	15.0%	15.0%	15.0%
	Ramp Rate (MW/min)	110	120	150
Startup Time (RR Hot, Minutes)	<30	<30	<30	

NOTE: All ratings are net plant, based on ISO conditions and natural gas fuel. Actual performance will vary with project-specific conditions and fuel.



READY TODAY. REINVENTING TOMORROW.
www.ge.com/power/7HA03



© 2019 General Electric Company. All rights reserved.