GE Power

F-CLASS

9F.06 GAS TURBINE (50 Hz)

F-CLASS LEADERSHIP WITH ROOM TO GROW

All power plants are different, but one requirement remains the same—the lowest life cycle cost in the right size for your project. The newest member of GE's 50 Hz portfolio, the 9F.06 gas turbine, delivers higher output and efficiency than any other GE F-class gas turbine. These units provide an unprecedented balance of performance and flexibility, with a baseload simple cycle rating of 342 MW and over 41 percent efficiency, coupled with a fast ramp capability of 65 MW per minute. As a result, the 9F.06 turbine provides you with greater capacity for flexibility, including renewable energy support. In combined cycle operation, the 9F.06 gas turbine's efficiency of over 61 percent provides the lowest cost of electricity in 50 Hz F-class technology. Benefitting from 2,000 hours of full-speed, full-load validation testing on previous F-class and H-class gas turbines, 9F.06 units are engineered to meet the availability and life cycle economics you have come to expect from GE's F-class gas turbines

342 MW
SIMPLE CYCLE OUTPUT

>61% COMBINED CYCLE EFFICIENCY

GE's Most Powerful and Efficient F-Class Gas Turbine

- Mass firing temperatures provide extended operation between planned maintenance events at 32,000 hour intervals.
- Similar architecture enables future upgrades to 9HA performance as plant requirements grow over time.
- Significant flexibility allows for customization for the specific power and exhaust condition needs of each project.
- Modular systems ease installation and reduce onsite labor requirements by reducing field mechanical welds by 25 percent and reducing field installed valves by a factor of 10.
- Maintenance is streamlined with quick- removal turbine roof, field-replaceable blades, and 100 percent borescope inspection coverage for all blades.
- Simplified dual fuel system uses less water, eliminates recirculation, and utilizes enhanced liquid purge for improved reliability and dependability.

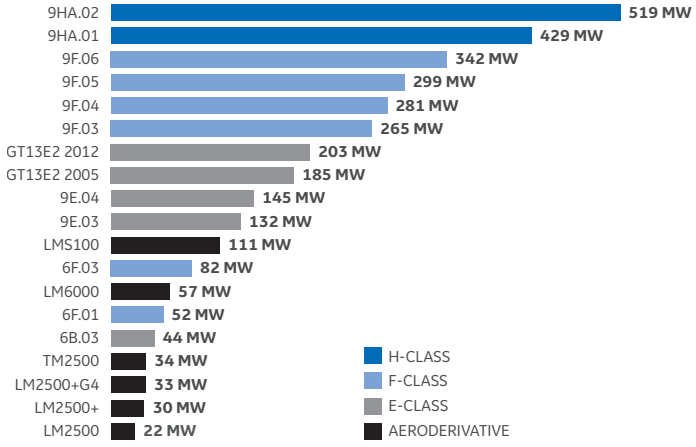
		9F.06
SC Plant Performance	SC Net Output (MW)	342
	SC Net Heat Rate (Btu/kWh, LHV)	8,310
	SC Net Heat Rate (kJ/kWh, LHV)	8,768
	SC Net Efficiency (%, LHV)	41.1%
Gas Turbine Parameters	Exhaust Temperature (°F)	1,144
	Exhaust Temperature (°C)	618
	Exhaust Energy (MM Btu/hr)	1,768
	Exhaust Energy (MM kJ/hr)	1,767
	GT Turndown Minimum Load (%)	38%
	GT Ramp Rate (MW/min)	65
	NO_X (ppmvd) at baseload (@15% O_2)	15
	CO (ppm) at Min. Turndown w/o Abatement	9
	Wobbe Variation (%)	+/-15%
	Startup Time (Conventional/Peaking, Minutes)	23/12
1x CC Plant Performance	CC Net Output (MW)	508
	CC Net Heat Rate (Btu/kWh, LHV)	5,580
	CC Net Heat Rate (kJ/kWh, LHV)	5,887
	CC Net Efficiency (%, LHV)	61.1%
	Plant Turndown – Minimum Load (%)	49%
	Ramp Rate (MW/min)	65
	Startup Time (RR Hot, Minutes)	<30
2x CC Plant Performance	CC Net Output (MW)	1,020
	CC Net Heat Rate (Btu/kWh, LHV)	5,560
	CC Net Heat Rate (kJ/kWh, LHV)	5,866
	CC Net Efficiency (%, LHV)	61.4%
	Plant Turndown – Minimum Load (%)	23%
	Ramp Rate (MW/min)	130
	Startup Time (RR Hot, Minutes)	<30

Efficient, Flexible, Reliable Power

GE's portfolio of heavy duty and aeroderivative gas turbines helps provide a sense of certainty in an uncertain world, delivering operational flexibility and performance needed to adapt to a rapidly evolving power generation environment. With gas turbine products ranging in individual output from 22 MW to 519 MW, GE has a solution to reliably and efficiently deliver the power needed by utility power generators, industrial operators, and communities. Even in remote locations and harsh conditions, you can count on GE to deliver a gas turbine that will meet your needs.

All of our gas turbines share the common heritage of jet engine technology pioneered by GE in the first half of the 20th century. They are typically categorized as either heavy duty (sometimes also called "frame") or aeroderivative gas turbines, although some turbines recently have adopted features of both design types. In general, the differences between the aeroderivative and heavy duty gas turbines are weight, size, combustor type, and turbine design. Heavy duty gas turbines are usually field constructed and maintained in place, whereas aeroderivative gas turbines are designed to allow for quick replacement of the entire engine when maintenance is required.

50 Hz Portfolio by Rating



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