



GE Power

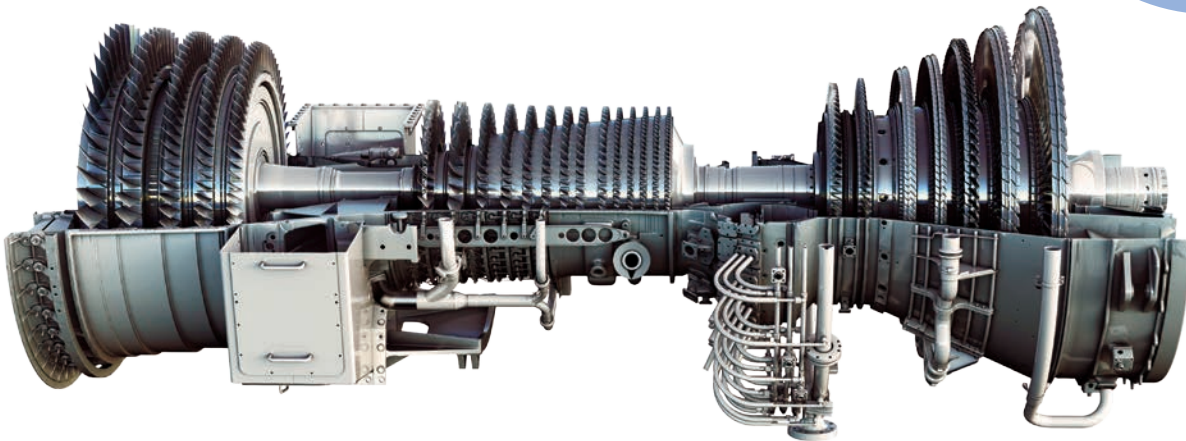
AERODERIVATIVE

LM6000 GAS TURBINE (60 Hz)

A COMPACT AND EFFICIENT SOLUTION THAT DELIVERS PROVEN FLEXIBILITY

GE's LM6000* family of aeroderivative gas turbines has achieved more than 31 million operating hours with over 1,100 units shipped to customers globally—more than ten times the experience of all other competing gas turbines in its class combined. The LM6000 aeroderivative gas turbine offers 49 MW to 57 MW of power, proven reliability, and efficiency in a package that can be tailored to meet the unique operating requirements of almost any distributed power application. Its fuel flexibility is critical for isolated installations with black start requirements, and a choice of combustion technologies helps operators meet stringent CO₂ and NO_x emissions requirements.

49-57 MW
SIMPLE CYCLE OUTPUT
>56% COMBINED
CYCLE EFFICIENCY



Fast, Flexible Solution for Changing Industry Needs

- Fast start with ramp-up to full power in five minutes or less.
- Engineered to cost-effectively cycle multiple times per day to meet dispatch profiles.
- Lightweight modular configuration for easier transport, installation, and onsite maintenance.
- Optimized hot day performance with Sprint, a wet compression inlet treatment for power augmentation.
- Robust design with industry-leading reliability (>99.8 percent) and availability (>98.4 percent).
- Proven simple cycle and combined cycle performance for efficient operation in duties from peaking to baseload.

LM6000 PC/PG:

- 50 MW/minute ramping capability with emissions-compliant turndown as low as 25 percent.
- Proven SAC combustion provides fuel flexibility with water injection for emission control.
- High fuel flexibility with capability to burn naphtha, propane, coke oven gas, ethanol, and LNG.

LM6000 PF/PF+:

- Combined cycle efficiencies of more than 56 percent.
- 50 MW/minute ramping capability.
- Proven dual fuel DLE combustion with 15 ppm NO_x on gas fuel capability.



		LM6000 PC	LM6000 PG	LM6000 PF	LM6000 PF+
Gas Turbine Rating	ISO Base Rating (MW)	52	59	50	57
	Gross Heat Rate (Btu/kWh, LHV)	8,444	8,581	8,109	8,256
	Gross Heat Rate (kJ/kWh, LHV)	8,909	9,053	8,555	8,711
	Gross Efficiency (% , LHV)	40.4%	39.8%	42.1%	41.3%
	Exhaust Temperature (°F)	851	897	865	914
	Exhaust Temperature (°C)	455	480	463	490
	Exhaust Energy (MM Btu/hr)	225	258	221	255
	Exhaust Energy (MM kJ/hr)	237	273	233	269
Gas Turbine Parameters	GT Turndown Minimum Load (%)	25%	25%	50%	50%
	GT Ramp Rate (MW/min)	50	50	50	50
	NO _x (ppm) (@15% O ₂)	25	25	25	25
	CO (ppm) (@15% O ₂)	89/150	94/150	25/70	25/25
	Wobbe Variation (%)	+/-20%	+/-20%	+/-25%	+/-25%
	Startup Time (Hot, Minutes)	5	5	5	5
SC Plant Performance	SC Net Output (MW)	50	57	49	55
	SC Net Heat Rate (Btu/kWh, LHV)	8,619	8,746	8,281	8,419
	SC Net Heat Rate (kJ/kWh, LHV)	9,093	9,227	8,737	8,883
	SC Net Efficiency (% , LHV)	39.6%	39.0%	41.2%	40.5%
1x CC Plant Performance	CC Net Output (MW)	58.6	72.8	58.3	69.8
	CC Net Heat Rate (Btu/kWh, LHV)	6,573	6,535	6,179	6,105
	CC Net Heat Rate (kJ/kWh, LHV)	6,935	6,895	6,520	6,441
	CC Net Efficiency (% , LHV)	51.9%	52.2%	55.2%	55.9%
	Plant Turndown - Minimum Load (%)	19%	19%	37%	37%
	Ramp Rate (MW/min)	50	50	50	50
	Startup Time (Hot, Minutes)	30	30	30	30
2x CC Plant Performance	CC Net Output (MW)	118	146	117	140
	CC Net Heat Rate (Btu/kWh, LHV)	6,555	6,516	6,161	6,085
	CC Net Heat Rate (kJ/kWh, LHV)	6,916	6,874	6,500	6,420
	CC Net Efficiency (% , LHV)	52.1%	52.4%	55.4%	56.1%
	Plant Turndown - Minimum Load (%)	19%	19%	19%	18%
	Ramp Rate (MW/min)	100	100	100	100
	Startup Time (Hot, Minutes)	30	30	30	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.

60 Hz Portfolio by Rating

