



GE Power

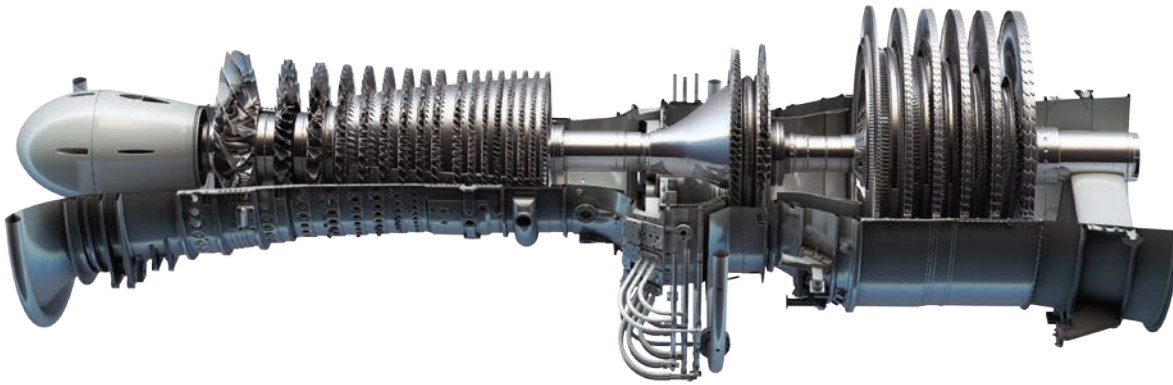
AERODERIVATIVE

LM2500 GAS TURBINE (50 Hz)

UNSURPASSED RELIABILITY, PROVEN EXPERIENCE, AND CONTINUOUS INNOVATION

The LM2500* series gas turbines serve a variety of operating applications in the oil and gas and industrial segments with 22 MW to 33 MW of power in simple cycle operation. The product family, which includes LM2500, LM2500+, and LM2500+G4 units, boasts over 2,100 units shipped and more than 75 million hours of operating experience. The LM2500 unit has been one of the top selling aeroderivative gas turbines for over 40 years and continues to build its reputation as the most reliable industrial gas turbine generator in its class. Ideal for onshore and offshore mechanical drive, in-plant power generation, pipeline, platform, cogeneration, and combined cycle applications, the LM2500 family continues to evolve to provide increased customer value.

22-33 MW
SIMPLE CYCLE OUTPUT
>36% SIMPLE
CYCLE EFFICIENCY



Serving the Needs of the Oil & Gas and Industrial Segments

- Lightweight and compact for quick installation and ease of maintenance.
- Robust design with greater than 99 percent; availability greater than 98 percent.
- Proven capability to achieve fast startup (<10 minutes) and operate in highly cyclic environments.
- Dual fuel capability for distillate and natural gas.
- Can accommodate naphtha, propane, coke oven gas, ethanol, and LNG.
- Reduced NO_x (<15 ppm) with the DLE combustor; also available with optional steam or water injection system for NO_x emission control.

LM2500+: More Power with the Same Proven Reliability

- Additional one stage of compression for another 8 MW of simple cycle output.
- One-piece first stage “blisk” (blade+disk) for increased ruggedness.
- Enhanced fit for pipeline, peaking power, and CHP applications.

LM2500+G4: Highest Efficiency of the LM2500 Family

- Modified first stage for increased air flow and pressure ratio.
- Improved design and materials in the compressor and turbine sections to enhance performance.



		LM2500	LM2500+	LM2500+G4
Gas Turbine Rating	ISO Base Rating (MW)	22.4	31.1	33.4
	Gross Heat Rate (Btu/kWh, LHV)	9,626	9,169	9,166
	Gross Heat Rate (kJ/kWh, LHV)	10,156	9,674	9,671
	Gross Efficiency (% , LHV)	35.4%	37.2%	37.2%
	Exhaust Temperature (°F)	1,017	1,003	1,026
	Exhaust Temperature (°C)	547	539	552
	Exhaust Energy (MM Btu/hr)	137	175	188
	Exhaust Energy (MM kJ/hr)	145	185	199
Gas Turbine Parameters	GT Turndown Minimum Load (%)	50%	50%	50%
	GT Ramp Rate (MW/min)	30	30	30
	NO _x (ppm) (@15% O ₂)	15	25	25
	CO (ppm) (@15% O ₂)	25/25	25/25	25/25
	Wobbe Variation (%)	+/-25%	+/-25%	+/-25%
	Startup Time (Hot, Minutes)	10	10	10
SC Plant Performance	SC Net Output (MW)	21.8	30.1	32.5
	SC Net Heat Rate (Btu/kWh, LHV)	9,835	9,338	9,352
	SC Net Heat Rate (kJ/kWh, LHV)	10,376	9,852	9,867
	SC Net Efficiency (% , LHV)	34.7%	36.5%	36.5%
1x CC Plant Performance	CC Net Output (MW)	32.8	44.0	47.7
	CC Net Heat Rate (Btu/kWh, LHV)	6,533	6,384	6,343
	CC Net Heat Rate (kJ/kWh, LHV)	6,892	6,736	6,693
	CC Net Efficiency (% , LHV)	52.2%	53.4%	53.8%
	Plant Turndown - Minimum Load (%)	33%	34%	34%
	Ramp Rate (MW/min)	30	30	30
	Startup Time (Hot, Minutes)	30	30	30
2x CC Plant Performance	CC Net Output (MW)	65.8	88.2	95.7
	CC Net Heat Rate (Btu/kWh, LHV)	6,507	6,361	6,320
	CC Net Heat Rate (kJ/kWh, LHV)	6,865	6,711	6,668
	CC Net Efficiency (% , LHV)	52.4%	53.6%	54.0%
	Plant Turndown - Minimum Load (%)	17%	17%	17%
	Ramp Rate (MW/min)	60	60	60
	Startup Time (Hot, Minutes)	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.

50 Hz Portfolio by Rating

